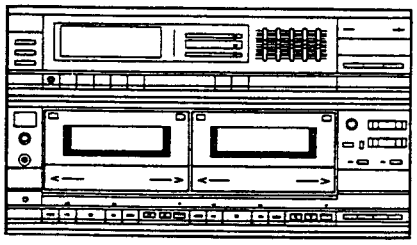
PIONEER
The future of sound and vision.

Service Manual



ORDER NO.
ARP1314

STEREO DOUBLE CASSETTE TAPE DECK AMPLIFIER

DC-X99Z

MODEL DC-X99Z COMES IN FOUR VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Power requirement	Export destination
HE	AC220V, 240V (switchable) *	European continent
HB	AC220V, 240V (switchable) *	United Kingdom
SD	AC110V, 120–127V, 220V, 240V (switchable)	General market
HEZ	AC220V, 240V (switchable) *	West Germany

* Change the primary wiring, please refer to page 44.

- This service manual is applicable to the HE, HB and SD types.
- As to the HB and SD types, please refer to pages 43–44.
- As to the HEZ type, please refer to the additional service manual (ARP1315).
- Ce manual d'instruction se refèr au mode de réglage, en français.
- Este manual de servicio trata del método ajuste escrito en español.

CONTENTS

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PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 6B8 Canada TEL: [416] 479-4411
PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium TEL: 03/775 · 28 · 08
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

1. EXPLODED VIEW

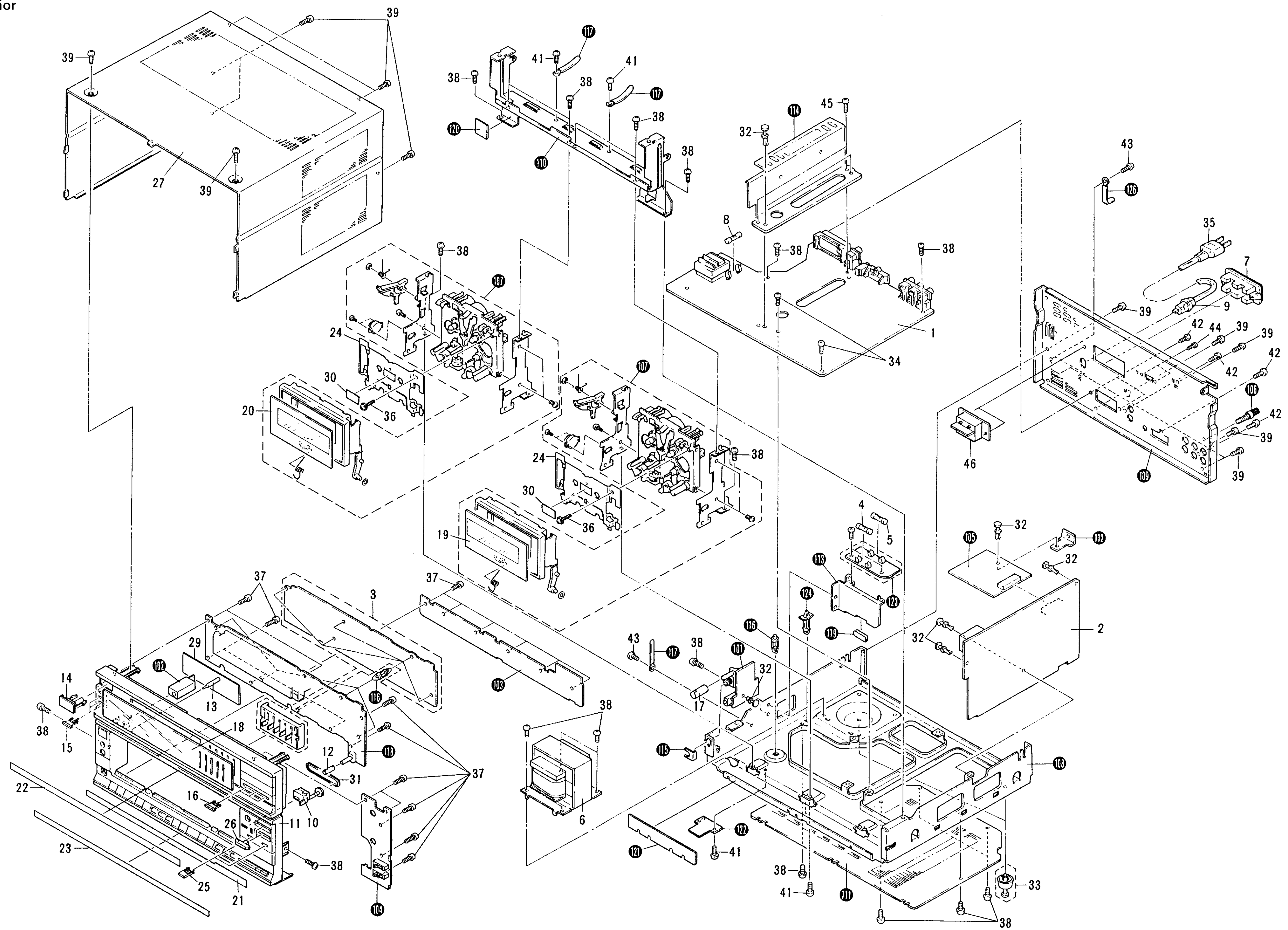
NOTES:

- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification should be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts List of Exterior

Mark	No.	Part No.	Description
⚠ ⊙	1	AWZ1306	Power μCOM assembly
⊙	2	AWZ1230	TAPE assembly
⊙	3	AWZ1226	GEQ E-VR assembly
⚠★★	4	AEK-402	FU1 Fuse (T1A/250V)
⚠★★	5	AEK-403	FU3 Fuse (T2.5A/250V)
⚠ ★	6	ATS1058 (AC220/240V)	T1 Power transformer
⚠	7	AKP-502	AC socket (AC OUTLETS)
⚠★★	8	AEK-017	FU2 Fuse (2A/250V)
⚠	9	AEC-882	Strain relief
	10	AAW1002	Tape counter
	11	AMB1142	Front panel assembly
	12	AAB-411	Knob (REC LEVEL)
	13	AAD1094	Knob (ADJUST)
	14	AAD1090	Knob (POWER)
	15	AAD1091	Knob E(TIMER MODO)
	16	AAD1092	knob E(MUTING,BALANCE)
	17	AAB1016	Knob (MIXING)
	18	AAK1202	P.C. panel
	19	AAK1198	Cassette plate
	20	AAK1155	Cassette plate
	21	AAK1197	Deck panel
	22	AAP1047	Alminum panel
	23	AAP1025	Alminum panel
	24	AAP1028	Mechanism cover
	25	AAY-355	Push knob C (GRAPHIC EQ REC, RELAY PLAY/REC)
	26	AAY-397	Slide knob (REVERSE MODE)
	27	ANE1056	Bonnet case
	28	.....	.....
	29	AAK1152	FL filter
	30	AAX1053	Fluorescent sheet
	31	AEB1033	Counter belt
	32	AEC-525	Nylon rivet
	33	AEC-847	Leg assembly
	34	.....	.....
⚠	35	ADG-041 (AC250V)	AC power cord
	36	ATT26P120FZK	Screw
	37	BBZ26P080FMC	Screw
	38	BBZ30P080FMC	Screw
	39	BBZ30P080FZK	Screw
	40	.....	.....
	41	VCZ30P060FMC	Screw
	42	BPZ30P080FZK	Screw
	43	BCZ30P060FZK	Screw
	44	VMZ30P060FZK	Screw
	45	ABZ30P100FMC	Screw
⚠★★	46	ASH-501 (MAIN POWER)	Slide switch
	101		MIC headphone assembly
	102		Remote sensor assembly
	103		Tact SW assembly
	104		DOLBY SW assembly
	105		DOLBY B/C assembly
	106		Terminal (GND)
	107		Mechanism unit
	108		Chassis
	109		Rear panel
	110		Panel stay
	111		Bottom plate
	112		F.E. holder
	113		Transformer holder
	114		Heat sink
	115		Mounting plate
	116		PCB holder
	117		Binder
	118		FL assembly
	119		Rubber B
	120		Rubber A
	121		Barrier
	122		Hole cover
	123		Fuse assembly
	124		PCB holder
	125		PCB holder
	126		Binder

1.1 Exterior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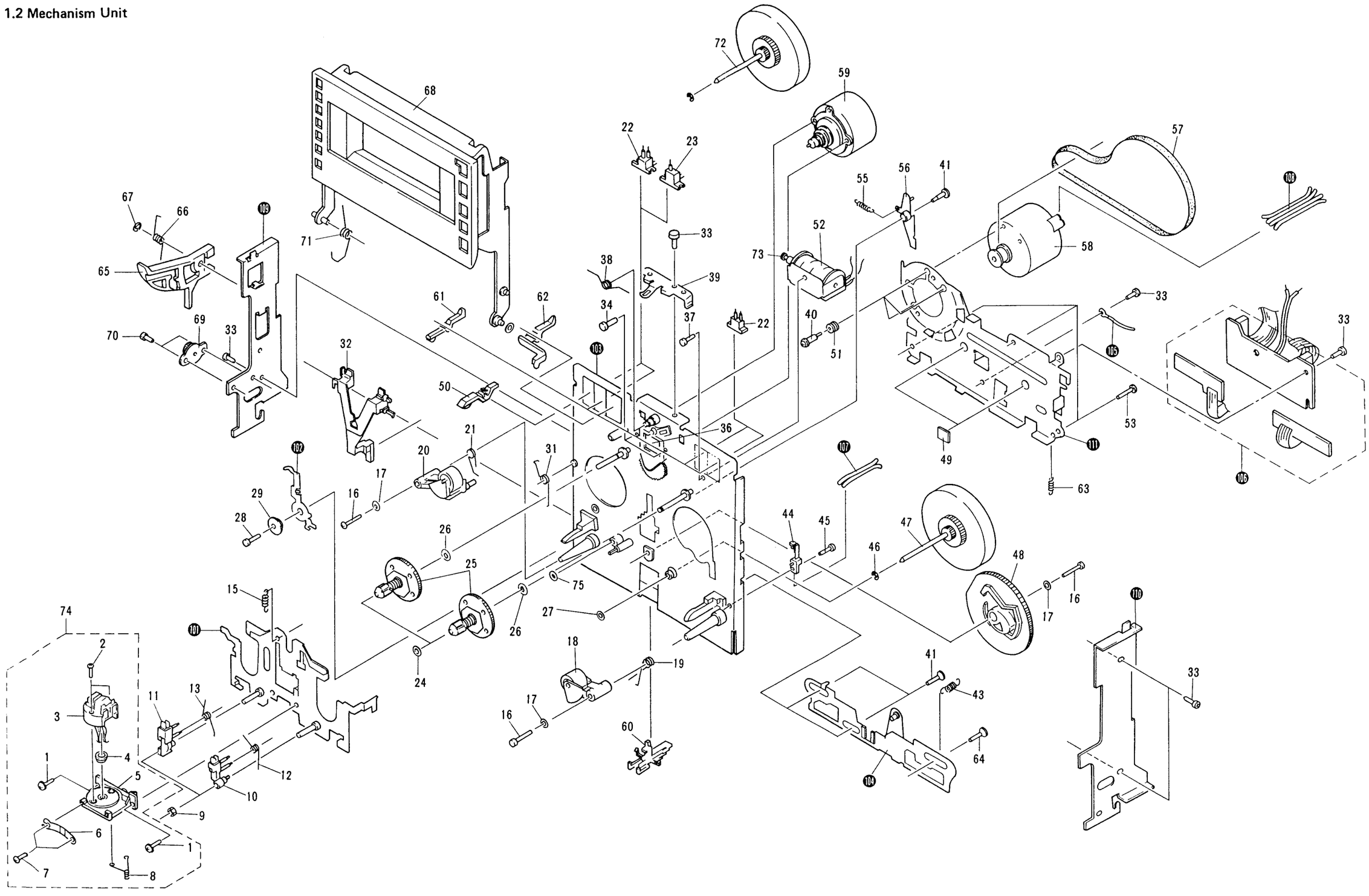
1.2 Mechanism Unit



NOTES:

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Parts List of Mechanism Unit I,II

Mark	No.	Part No.	Description
	1	AXT-010	Screw with washer
	2	ATX-015	Screw
**	3	AZP1011	REC/PB head
	4	AXS-123	Cushion
	5	AXP-049	HD base
	6	AXV-120	Spring
	7	AXT-016	Screw
	8	AXV-121	Spring
	9	AXS-109	Adjustment nut
	10	AXS-110	Tape guide
	11	AXS-111	Sensor holder
	12	AXV-107	Adjustment spring (R)
	13	AXV-108	Adjustment spring (L)
	14		.....
	15	AXV-109	Head base spring
	16	PBZ20P130FMC	Screw
	17	WB20FMC	Washer
	18	AXP-043	Pinch roller assembly (R)
	19	AXV-110	Pinch roller spring (R)
	20	AZN1220	Pinch roller assembly (L)
	21	AXV-111	Pinch roller spring (L)
**	22	AXN-035	Push switch
**	23	AZS1001	Push switch
	24	WA16D040D020	Washer
	25	AXP-045	Reel assembly
	26	WA21D040D030	Washer
	27	AXW-039	Washer
	28	PBZ30P080FMC	Screw
	29	AXS-112	Spacer
	30		.....
	31	AXV-112	Anti-eject spring(L)
	32	ANZ1214	Hold lever (C)
	33	PCZ30P040FMC	Screw
	34	AZB1059	Screw with washer
	35		.....
	36	AZN1215	Idler assembly
	37	PBA26P035FMC	Screw
	38	AXV-113	Hold spring
	39	AXV-114	Spring
	40	ATX-012	Motor set screw
	41	AXS-114	Cap
	42		.....
	43	AXV-115	Slide Board spring
**	44	AXN-036	Leaf switch (PLAY)
	45	AZB1049	Screw
	46	AZB1050	Washer
	47	AZN1218	F/W assembly (R)
	48	AZN1219	Cam gear (E)
	49	AZN1226	Spacer
	50	AZS1025	PACK detector lever
	51	AXW-038	Motor cusion
*	52	AZS1028	Solenoid
	53	PBZ26P080FMC	Screw
	54		.....
	55	AXV-116	Play arm spring
	56	AZN1221	Play arm assembly
**	57	AZN1222	Main belt
**	58	AZX1010	Motor assembly (MAIN)
**	59	AZX1009	Motor assembly (REEL)
	60	AXS-117	Lead holder
	61	AZS1026	REC detector lever
	62	AZS1027	Metal detector lever
	63	AXV-117	Earth spring
	64	AXT-013	Cap
	65	AZN1003	Eject cam
	66	AZN1006	Cam spring
	67	YE20FUC	E-ring
**	68	AZN1216	Frame door assembly
	69	AZN1008	Damper assembly
	70	PBZ20P030FMC	Screw
	71	AZN1227	Eject spring
	72	AZN1217	F/W assembly (L)
	73	AZN1228	Plunger
	74	AZP1010	REC/PB head assembly
	75	AZB1060	Washer
	101		Head plate
	102		Anti-eject spring
	103		Chassis
	104		Slide plate
	105		Lug
	106		Control PC assembly
	107		Wire connector
	108		Wire connector
	109		Mounting plate (R)
	110		Mounting plate (L)
	111		F/W BRACKET

External Appearance of Transistor and ICs

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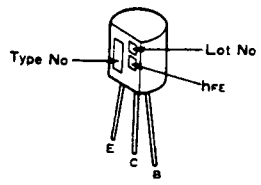

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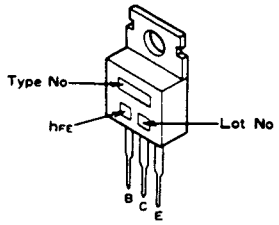

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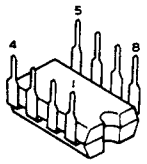

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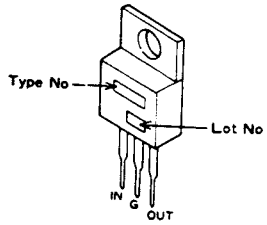

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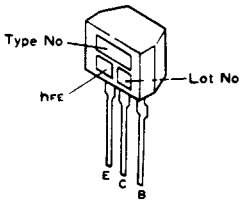

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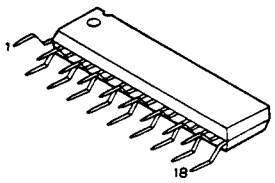

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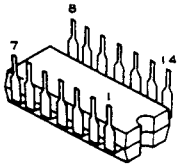
TC4066BP
μPD4001BC
μPD4011BC
μPD4066BC



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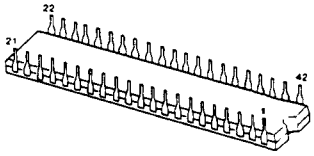

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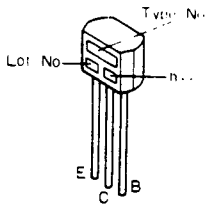

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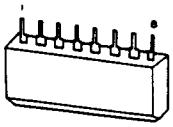

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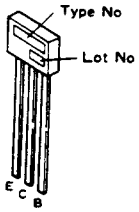
RN2203



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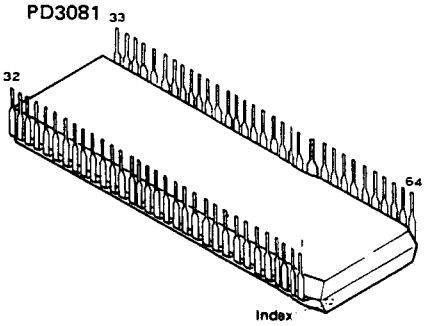

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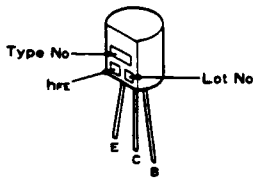

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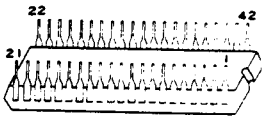

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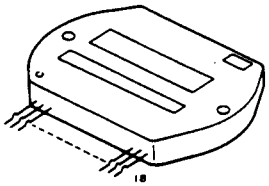

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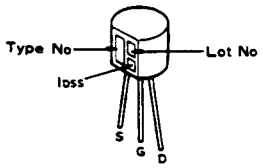

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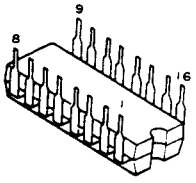
TC4052BP



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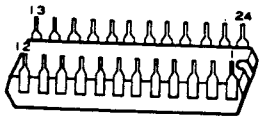

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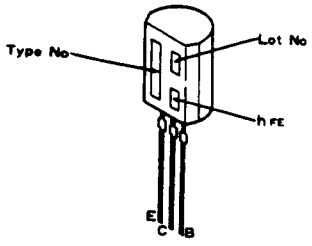

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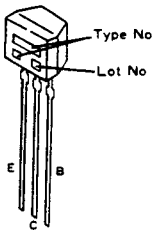

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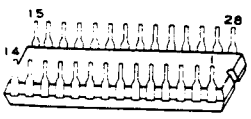

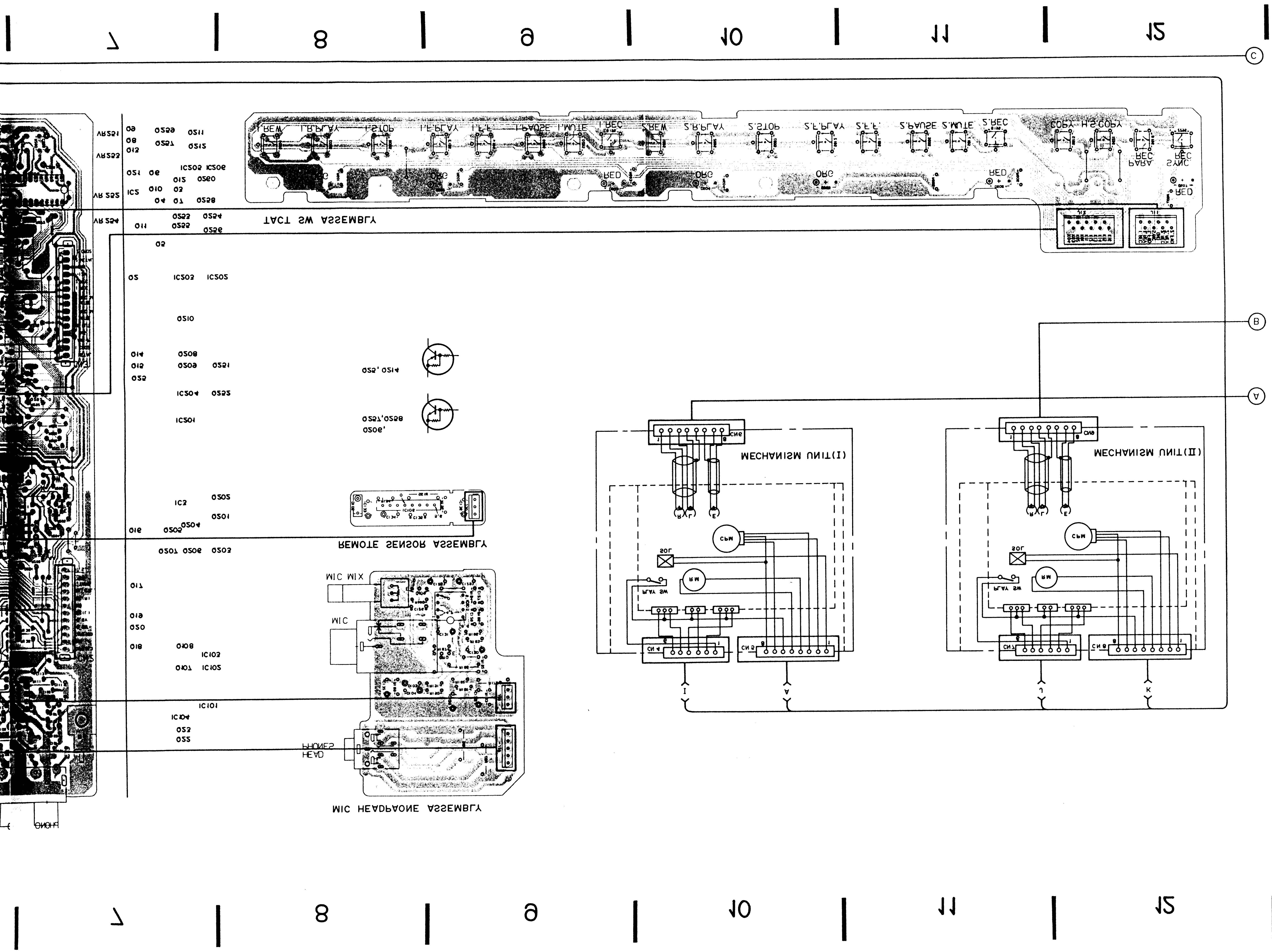

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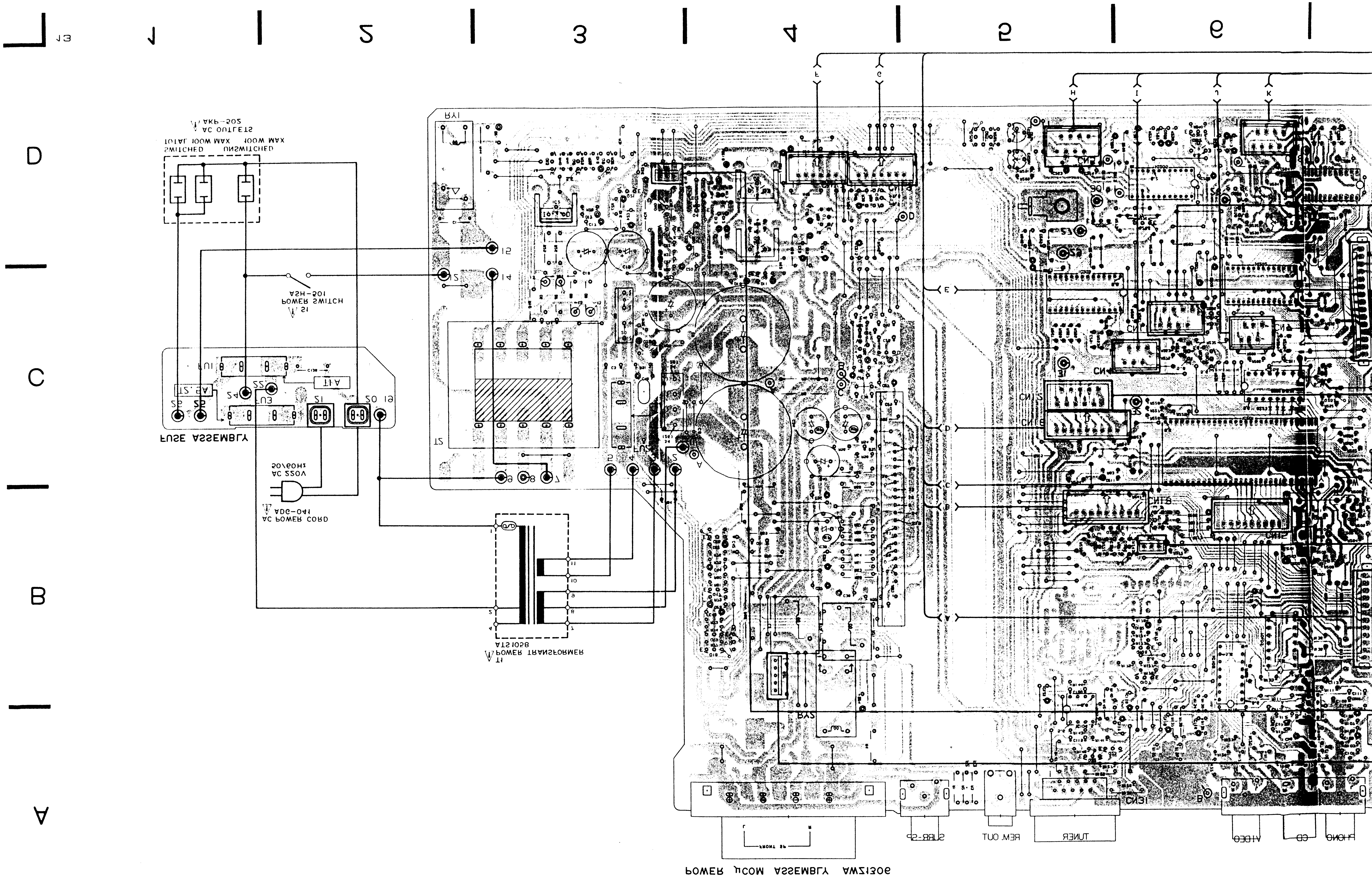
12
TACT SW ASSEMBLY
1.REW
1.R.PLAY
1.STOP
1.F.PLAY
1.F.F.
1.PAUSE
1.MUTE
1.REC
2.REW
2.R.PLAY
2.STOP
2.F.PLAY
2.F.F.
2.PAUSE
2.MUTE
2.REC
COPY
H.S.COPY
PARA. REC
SYNC. REC
RED
ORG
VR251
VR253
VR252
VR254
IC501
IC502
IC503
IC504
IC505
IC506
IC101
IC102
IC103
IC104
Q25, Q214
Q257, Q258
Q206,
REMOTE SENSOR ASSEMBLY
MIC MIX
MIC
PHONES
HEAD
MIC HEADPHONE ASSEMBLY
MECHANISM UNIT(I)
MECHANISM UNIT(II)
CN4
CN5
CN6
CN7
CN8
CN9
CPM
SOL
RM
PLAY SW
A
B
C

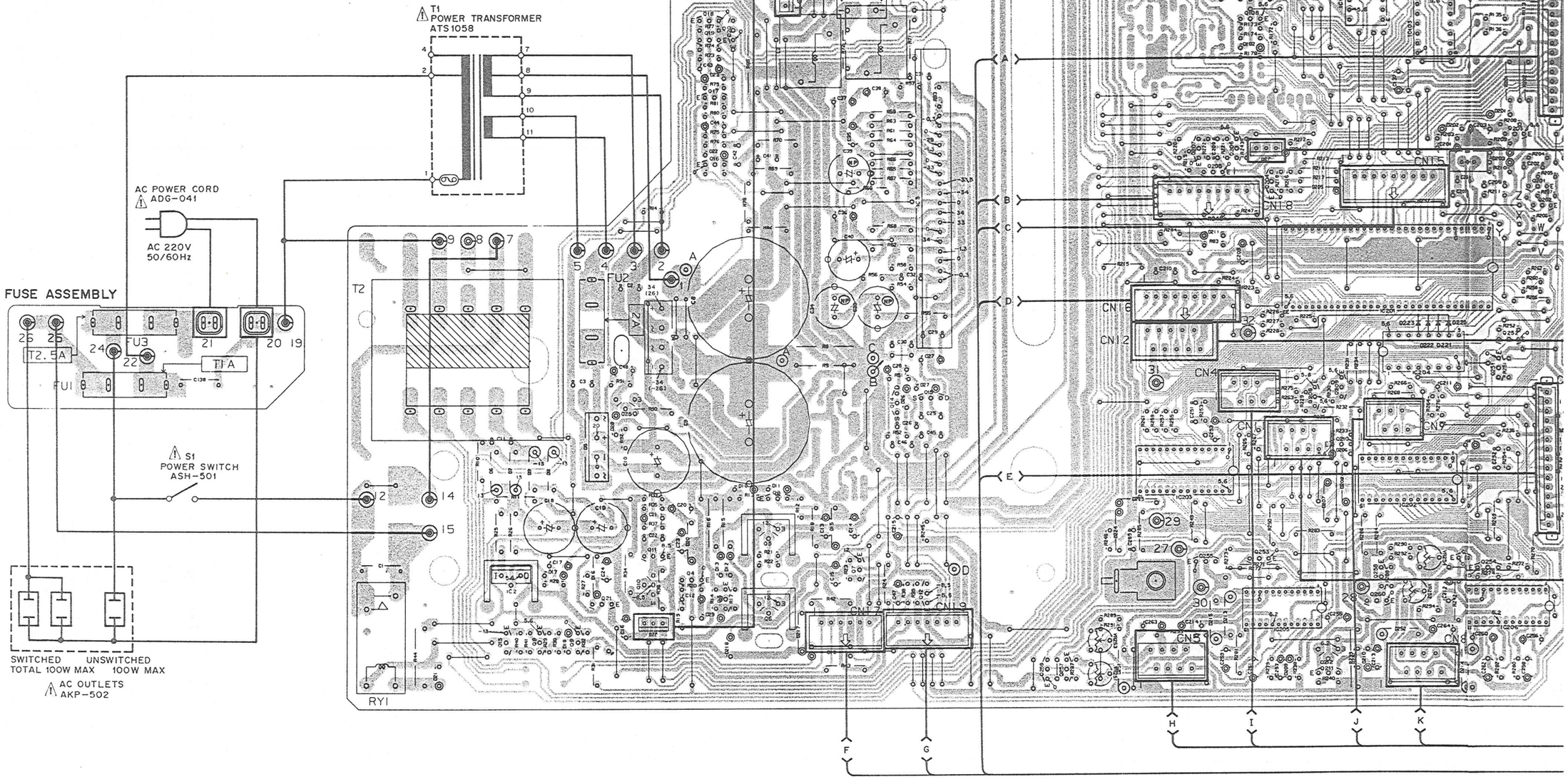


2. P.C.BOARDS CONNECTION DIAGRAM

DC-X99Z

2. P.C.BOARDS CONNECTION DIAGRAM

POWER μCOM ASSEMBLY AWZ1306



MIC HEADPAONE ASSEMBLY

HEAD PHONES

MIC

MIC MIX

REMOTE SENSOR ASSEMBLY

CN2

CN3

Q22
Q23
IC104
IC101
Q107 IC102
IC103
Q18 Q108
Q20
Q19
Q17
Q207 Q206 Q203
Q16 Q205 Q204
Q201
IC3
Q202
IC201
IC204 Q252
Q25
Q15 Q209 Q251
Q14 Q208
Q210
Q2 IC203 IC202
Q5
VR 254 Q11 Q255 Q256
Q253 Q254
VR 252 Q4 Q7 Q258
IC2 Q10 Q3
Q12 Q260
Q21 Q6 IC205 IC206
VR253 Q13
Q8 Q257 Q212
VR251 Q9 Q259 Q211

Q206, Q257,Q258

Q25, Q214

I
A
CN 4
CN 5
PLAY SW
RM
SOL
CPM
R L E
MECHANISM UNIT(I)
CN6

J
K
CN7
CN 8
PLAY SW
RM
SOL
CPM
R L E
MECHANISM UNIT(II)
CN9

A

B

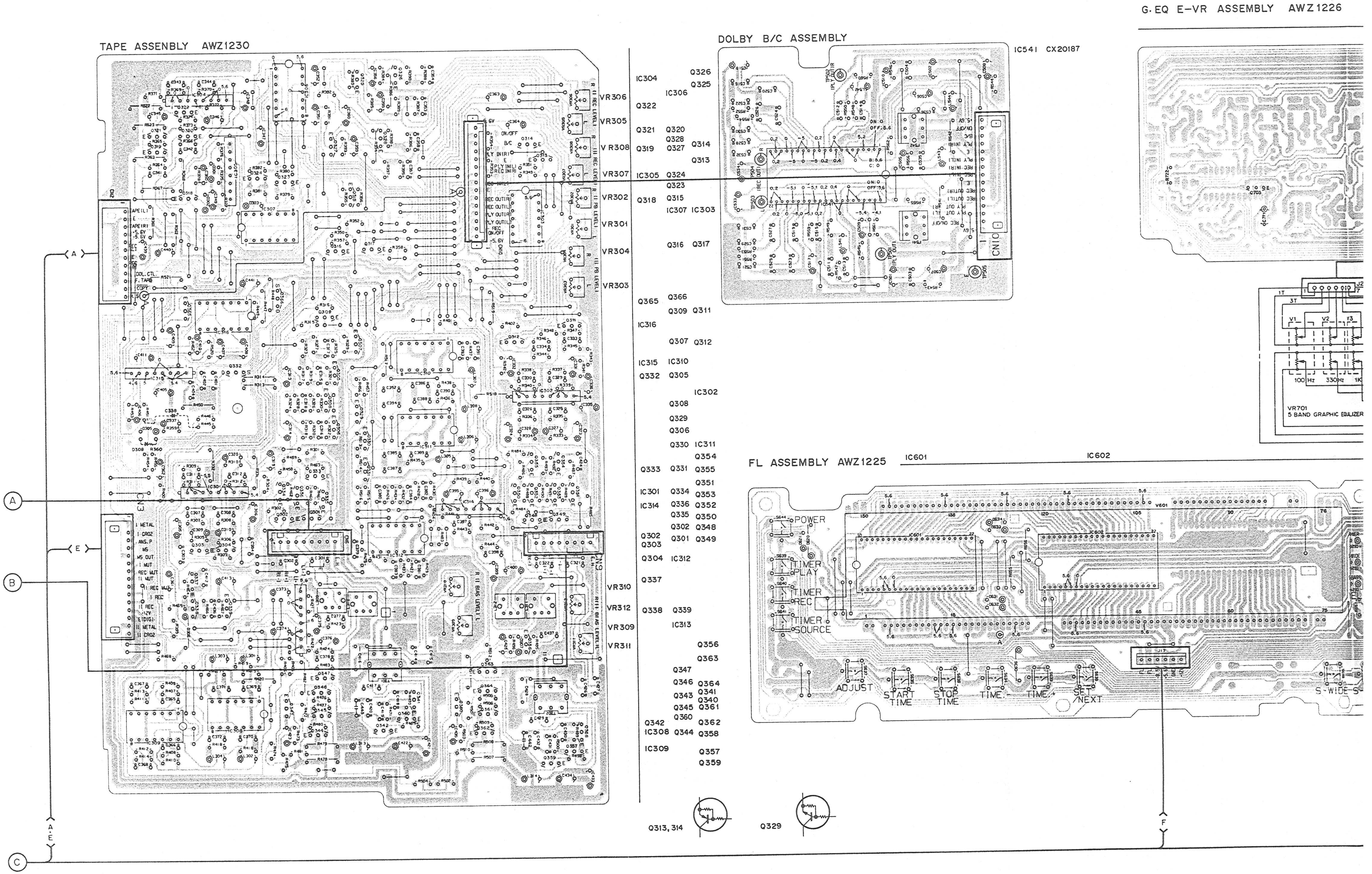
TACT SW ASSEMBLY

ORG ORG RED ORG ORG RED RED

I.REW I.R.PLAY I.STOP I.F.PLAY I.F.F. I.PAUSE I.MUTE I.REC 2.REW 2.R.PLAY 2.STOP 2.F.PLAY 2.F.F. 2.PAUSE 2.MUTE 2.REC COPY H.S.COPY PARA. REC SYNC. REC

C

13 14 15 16 17 18

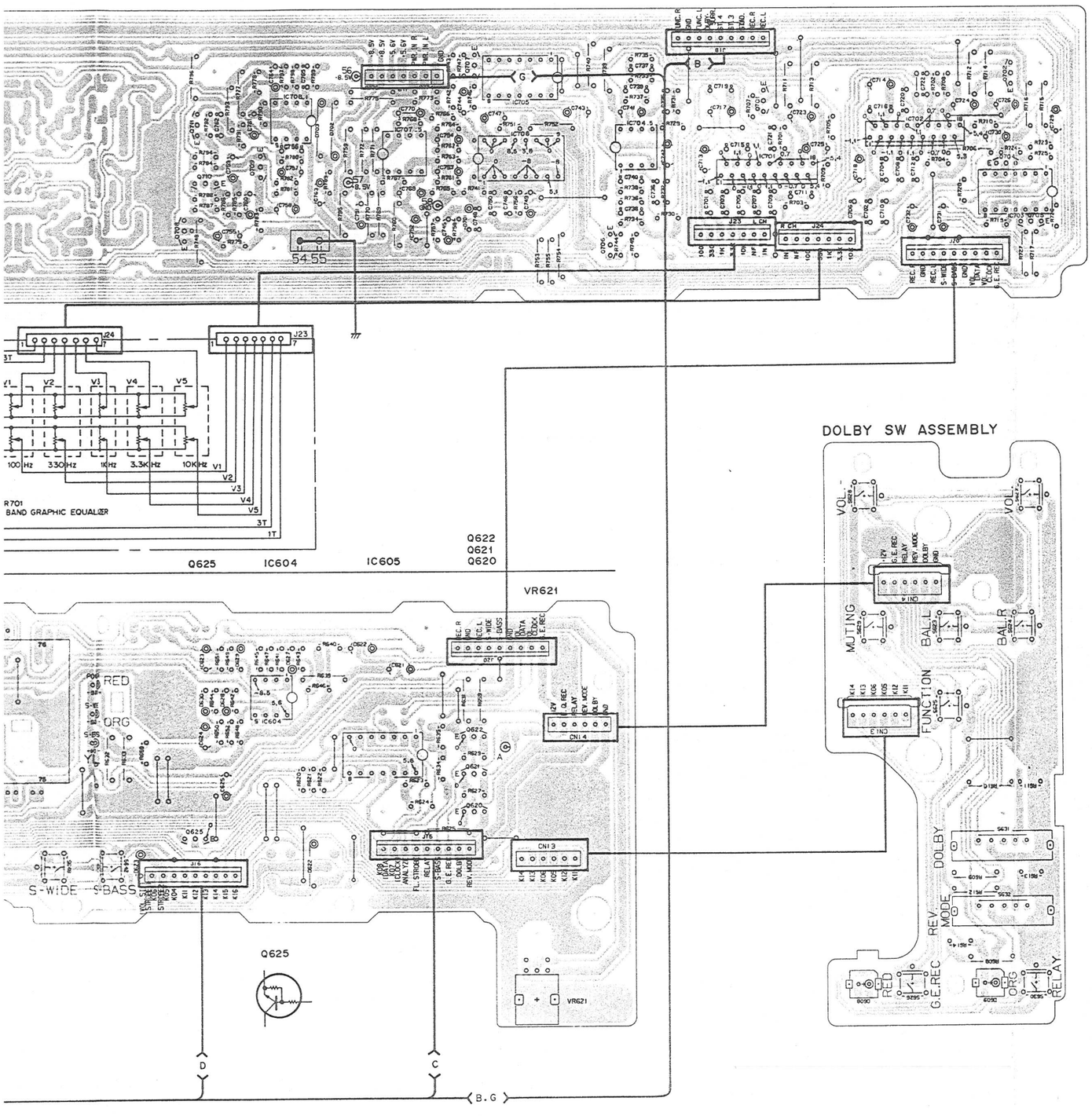


13 14 15 16 17 18

19 20 21 22 23

AWZ1226

Q711 Q710 Q708 IC708 Q709 IC707 Q707 IC705 IC706 IC704 Q706 Q701 IC701 IC702 Q702 Q704 IC703 Q705



NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 (E B C)	or	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

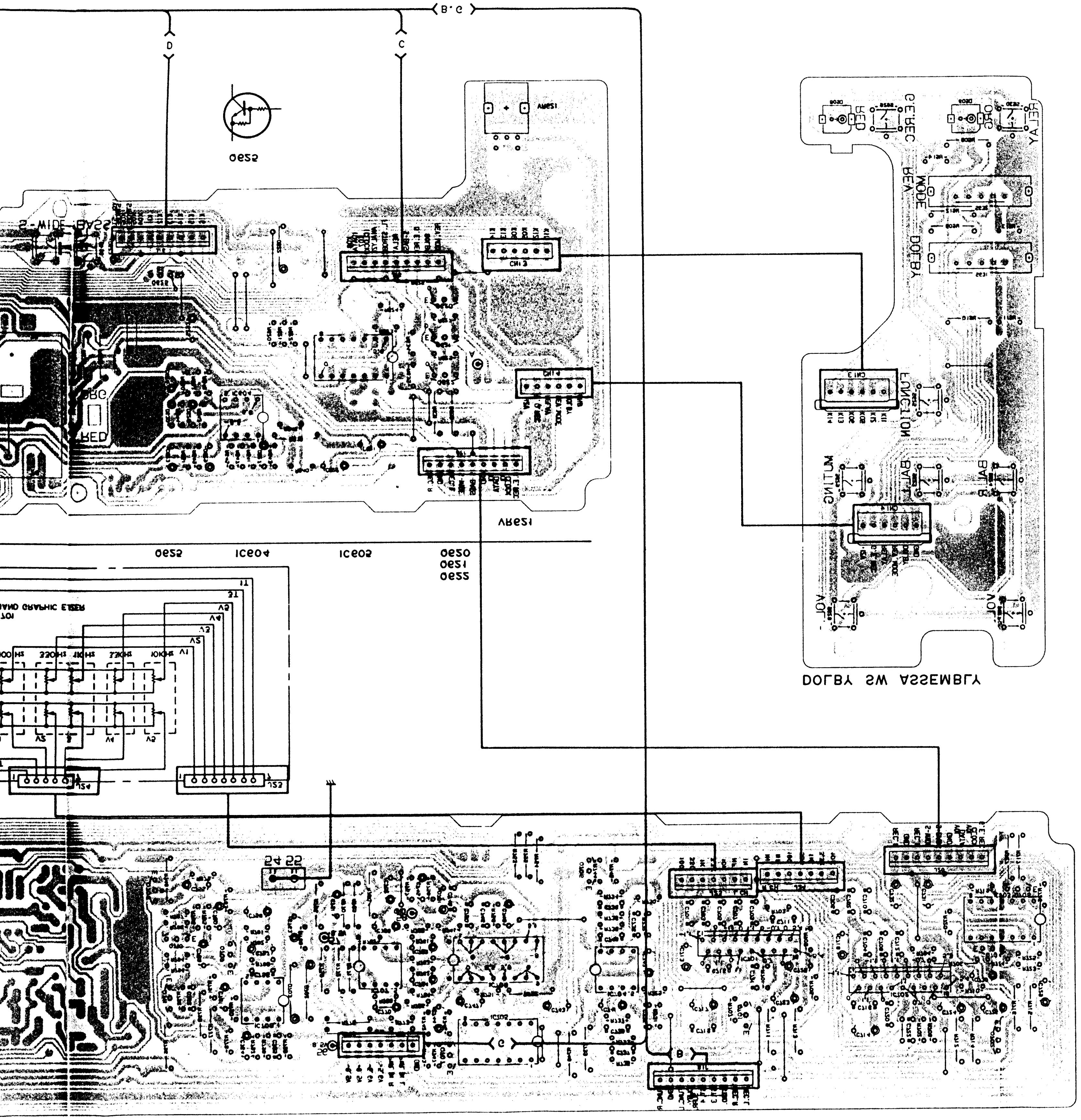
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⓞ (double circles) shows negative terminal.
4. The diode terminal marked with ⓞ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

A B C D

19 20 21 22 23 24



NOTE

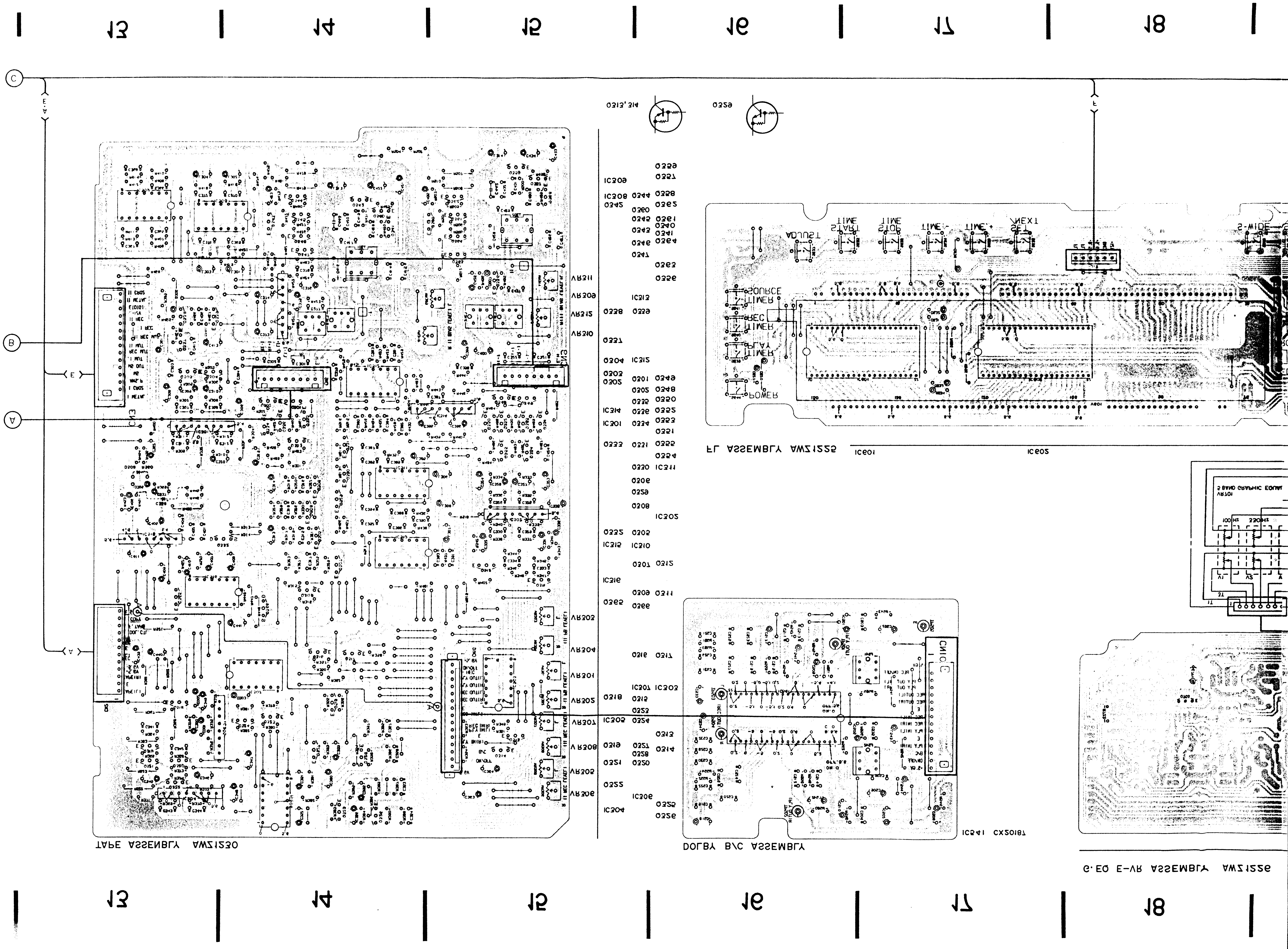
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.



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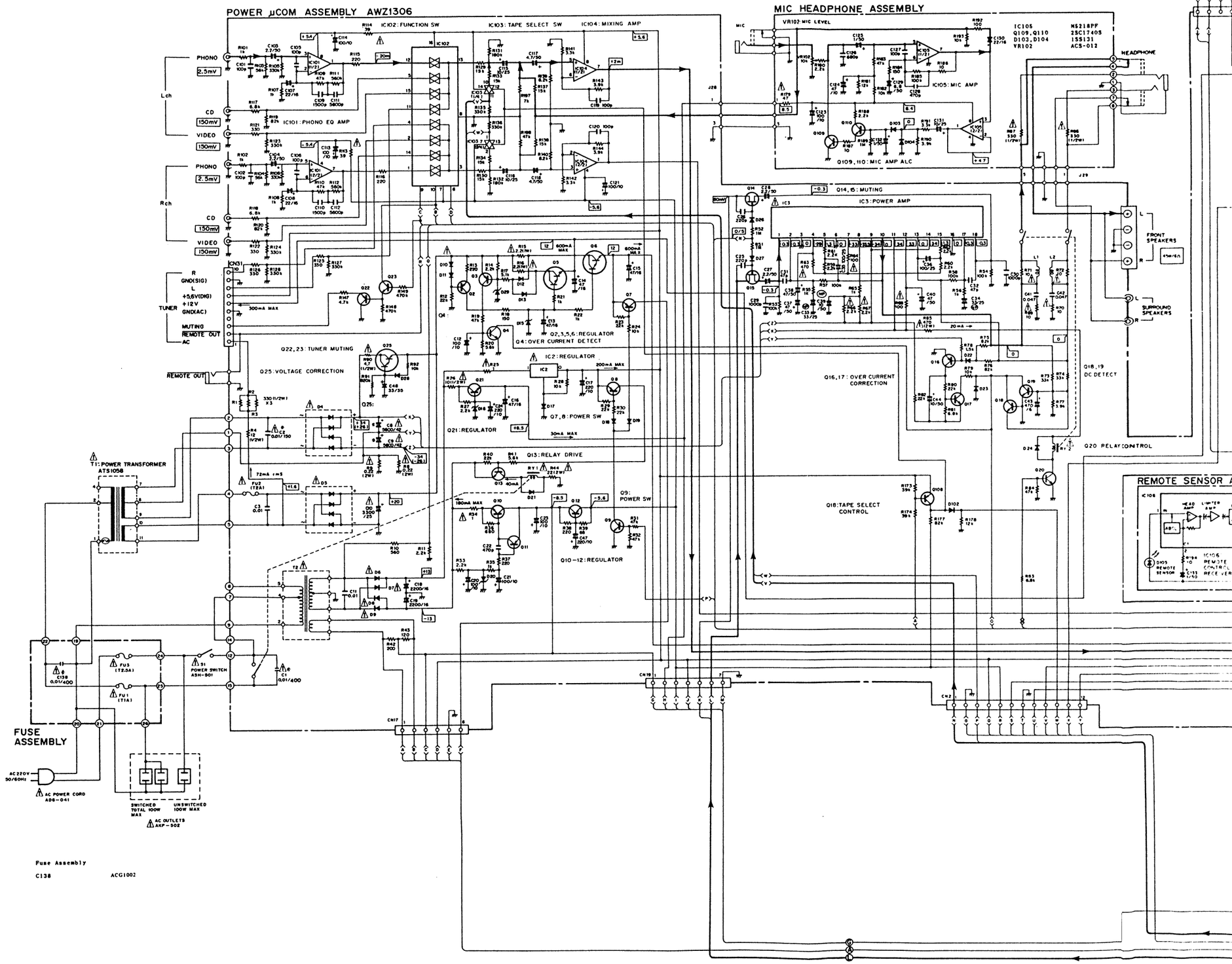
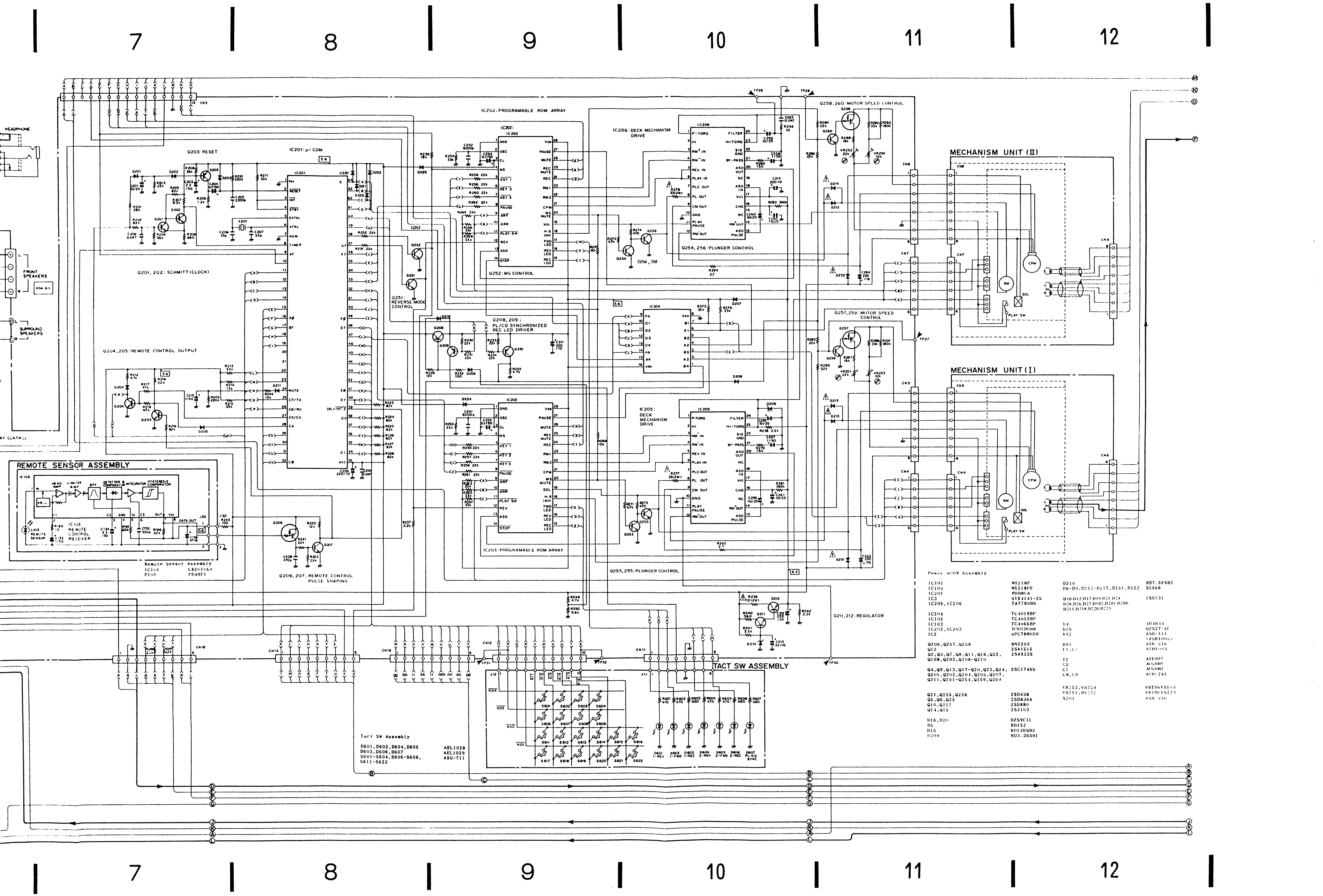
TAPE ASSENBLY AWZ1230
DOLBY B/C ASSEMBLY
IC541 CX20187
FL ASSEMBLY AWZ1225
IC601
IC602
G.EQ E-VR ASSEMBLY AWZ1226
ADJUST
TIME START
TIME STOP
TIME -
TIME +
SET
NEXT
SOURCE
REC
TIMER
PLAY
POWER
5 BAND GRAPHIC EQUA
VR701
S-WIDE

3. SCHEMATIC DIAGRAM



Fuse Assembly

C138	ACG1002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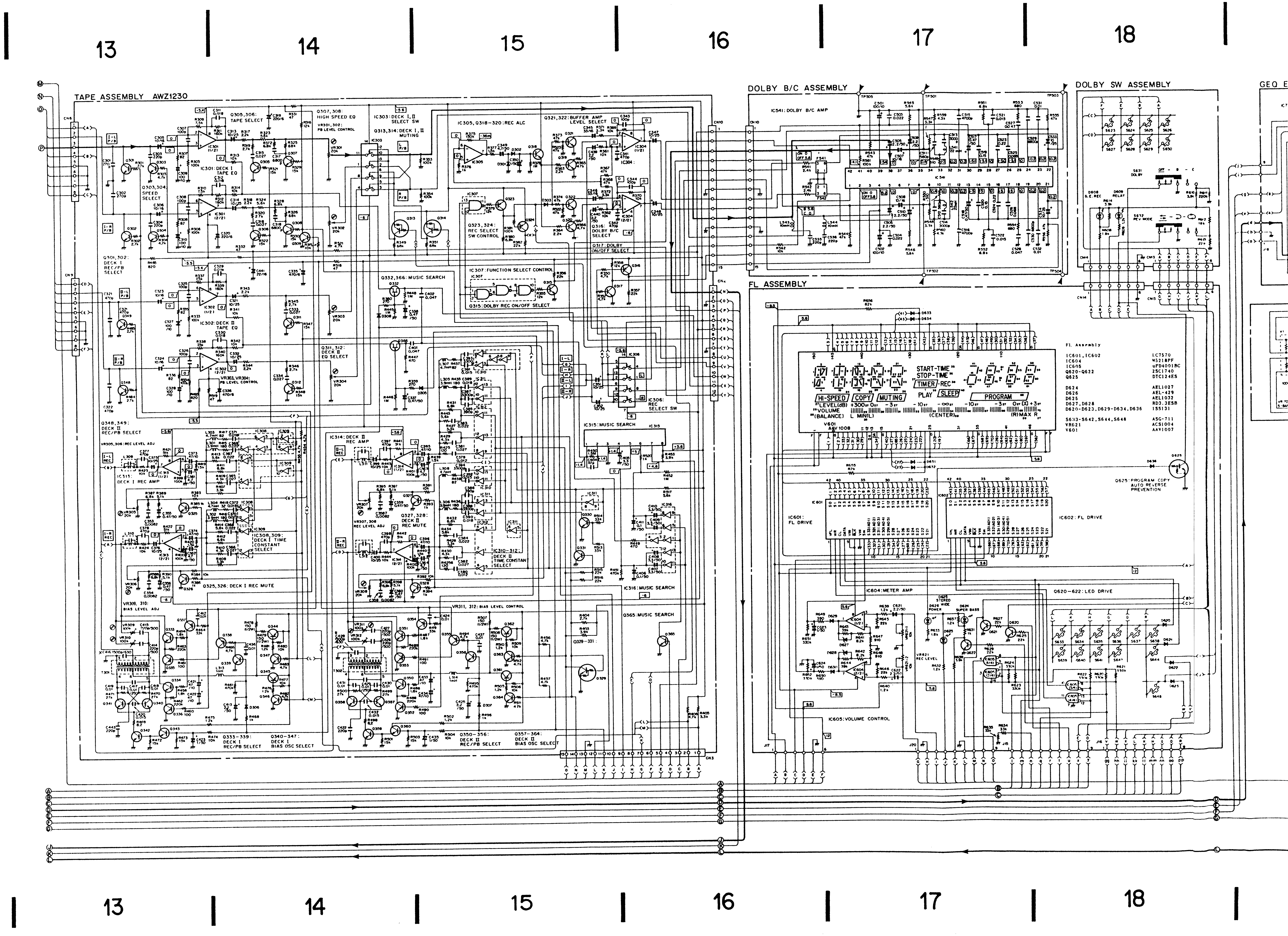
HEADPHONE
FRONT SPEAKERS
SURROUND SPEAKERS
IC202: PROGRAMABLE ROM ARRAY
IC201: µ-COM
Q203: RESET
Q201, 202: SCHMITT (CLOCK)
Q204, 205: REMOTE CONTROL OUTPUT
Q251: REVERSE MODE CONTROL
Q252: MS CONTROL
Q208, 209: PL/CD SYNCHRONIZED REC LED DRIVER
IC206: DECK MECHANISM DRIVE
Q254, 256: PLUNGER CONTROL
Q258, 260: MOTOR SPEED CONTROL
Q257, 259: MOTOR SPEED CONTROL
MECHANISM UNIT (II)
MECHANISM UNIT (I)
IC205: DECK MECHANISM DRIVE
IC203: PROGRAMABLE ROM ARRAY
Q253, 255: PLUNGER CONTROL
Q211, 212: REGULATOR
REMOTE SENSOR ASSEMBLY
IC106 REMOTE CONTROL RECEIVER
REMOTE SENSOR
HEAD AMP
LIMITER AMP
BPF
DETECTOR & COMPARATOR
INTEGRATOR
HYSTERESIS COMPARATOR
DATA OUT
Q206, 207: REMOTE CONTROL PULSE SHAPING
TACT SW ASSEMBLY
D601 1-REV
D602 1-FWD
D603 1-REC
D604 2-REV
D605 2-FWD
D606 2-REC
D607 PL/CD SYNC
Remote Sensor Assembly
IC106 CX20106A
D105 PD49P1
Tact SW Assembly
D601, D602, D604, D605 AEL1028
D603, D606, D607 AEL1029
S601-S604, S606-S609, S611-S622 ASG-711
Power uCOM Assembly
IC101 M5218P
IC104 M5218PF
IC201 PD3081-A
IC3 STK4141-2S
IC205, IC206 TA7780BN
IC204 TC4019BP
IC102 TC4052BP
IC103 TC4066BP
IC202, IC203 TC9312N 048
IC2 uPC78M05H
Q206, Q257, Q258 RN2203
Q12 2SA1515
Q2, Q3, Q7, Q8, Q11, Q16, Q22, Q108, Q203, Q208-Q210 2SA933S
Q4, Q9, Q13, Q17-Q20, Q23, Q24, Q201, Q202, Q204, Q205, Q207, Q211, Q251-Q254, Q259, Q260 2SC1740S
Q21, Q255, Q256 2SD438
Q5, Q6, Q25 2SD836A
Q10, Q212 2SD880
Q14, Q15 2SJ103
D16, D20 HZS9C1L
D5 RB152
D15 RD13ESB3
D209 RD3.3ESB1
D210 RD7.5ESB2
D6-D9, D212-D215, D251, D252 S5566
D10-D13, D17-D19, D21-D24, D28, D26, D27, D102, D201-D208, D211, D218, D220-D225 1SS131
D4 4D4B14
D29 HZS27-21
RY2 ASR-111 (ASR1005)
RY1 ASR-516
T2 ATT1037
C2 ACG1005
C1 ACG1002
C8, C9 ACH-291
VR253, VR254 VRTB6VS103
VR251, RV252 VRTB6VS223
X201 ASS-036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TAPE ASSEMBLY AWZ1230
DOLBY B/C ASSEMBLY
DOLBY SW ASSEMBLY
FL ASSEMBLY
IC541: DOLBY B/C AMP
Q305,306: TAPE SELECT
Q307,308: HIGH SPEED EQ
VR301,302: PB LEVEL CONTROL
IC303: DECK I, II SELECT SW
Q313,314: DECK I, II MUTING
IC305, Q318–320: REC ALC
Q321,322: BUFFER AMP LEVEL SELECT
IC301: DECK I TAPE EQ
Q303,304: SPEED SELECT
Q323,324: REC SELECT SW CONTROL
Q316: DOLBY B/C SELECT
Q317: DOLBY ON/OFF SELECT
Q301,302: DECK I REC/PB SELECT
IC302: DECK II TAPE EQ
Q311,312: DECK II EQ SELECT
VR303, VR304: PB LEVEL CONTROL
Q332,366: MUSIC SEARCH
IC307: FUNCTION SELECT CONTROL
Q315: DOLBY REC ON/OFF SELECT
IC306: REC SELECT SW
IC315: MUSIC SEARCH
Q348,349: DECK I REC/PB SELECT
VR305,306: REC LEVEL ADJ
IC313: DECK I REC AMP
IC314: DECK II REC AMP
IC308,309: DECK I TIME CONSTANT SELECT
IC310–312: DECK II TIME CONSTANT SELECT
Q327,328: DECK II REC MUTE
Q325,326: DECK I REC MUTE
IC316: MUSIC SEARCH
Q365: MUSIC SEARCH
Q329–331
VR309, 310: BIAS LEVEL ADJ
VR311, 312: BIAS LEVEL CONTROL
Q333–339: DECK I REC/PB SELECT
Q340–347: DECK I BIAS OSC SELECT
Q350–356: DECK II REC/PB SELECT
Q357–364: DECK II BIAS OSC SELECT
START-TIME
STOP-TIME
TIMER-REC
PLAY
SLEEP
PROGRAM
HI-SPEED
COPY
MUTING
LEVEL(dB)
VOLUME
(BALANCE)
L MIN(L)
(CENTER)
(R)MAX R
V601
AAV1008
FL Assembly
IC601, IC602 IC7570
IC604 M5218PF
IC605 uPD4001BC
Q620–Q622 2SC1740
Q625 DTC124ES
D624 AEL1027
D626 AEL-429
D625 AEL1032
D627, D628 RD3.3ESB
D620–D623, D629–D634, D636 1SS131
S613–S642, S644, S648 ASG-711
VR621 ACS1004
V601 AAV1007
IC601: FL DRIVE
IC602: FL DRIVE
IC604: METER AMP
Q620–622: LED DRIVE
Q625: PROGRAM COPY AUTO REVERSE PREVENTION
IC605: VOLUME CONTROL
VR621 REC LEVEL
D625 STEREO WIDE
D626 POWER
D624 SUPER BASS
D608 S.E.REC
D609 RELAY
S631 DOLBY
S632 PEV MODE
GEO E
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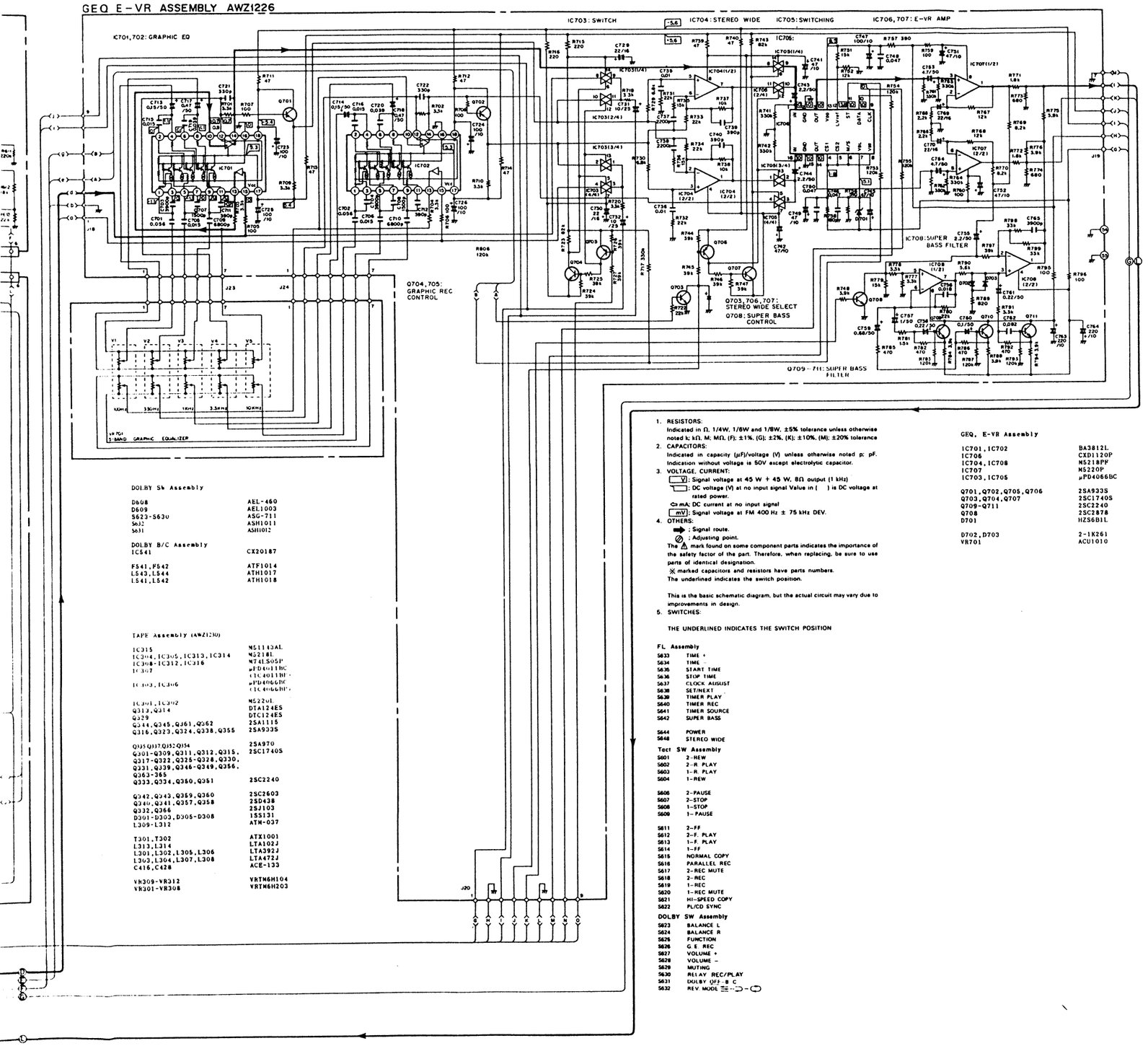
NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.

GEQ E-VR ASSEMBLY AWZ1226



DOLBY SR Assembly

D608	AEL-460
D609	AEL1003
S623-S630	ASG-711
S632	ASH1011
S631	ASH1012

DOLBY B/C Assembly

IC541	CX20187
F541, F542	ATF1014
L543, L544	ATH1017
L541, L542	ATH1018

TAPE Assembly (AWZ1230)

IC315	M51143AL
IC304, IC305, IC313, IC314	M5218L
IC306-IC312, IC316	M74LS05P
IC307	μPD4011BC
IC303, IC306	μPD4066BC
	(TC4066BP)
IC301, IC302	M5220L
Q313, Q314	DTA124ES
Q329	DTC124ES
Q344, Q345, Q361, Q362	2SA1115
Q316, Q323, Q324, Q338, Q355	2SA933S
Q335 Q337 Q352 Q354	2SA970
Q301-Q309, Q311, Q312, Q315, Q317-Q322, Q325-Q328, Q330, Q331, Q339, Q346-Q349, Q356, Q363-365	2SC1740S
Q333, Q334, Q350, Q351	2SC2240
Q342, Q343, Q359, Q360	2SC2603
Q340, Q341, Q357, Q358	2SD438
Q332, Q366	2SJ103
D301-D303, D305-D308	1SS131
L309-L312	ATM-037
T301, T302	ATX1001
L313, L314	LTA102J
L301, L302, L305, L306	LTA392J
L303, L304, L307, L308	LTA472J
C416, C428	ACE-133
VR309-VR312	VRTM6H104
VR301-VR308	VRTM6H203

1. RESISTORS:
Indicated in Ω, 1/4W, 1/6W and 1/8W, ±5% tolerance unless otherwise noted k: kΩ, M: MΩ, (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% tolerance
2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF.
Indication without voltage is 50V except electrolytic capacitor.
3. VOLTAGE, CURRENT:
V: Signal voltage at 45 W + 45 W, 8Ω output (1 kHz)
: DC voltage (V) at no input signal Value in ( ) is DC voltage at rated power.
⇔ mA: DC current at no input signal
mV: Signal voltage at FM 400 Hz ± 75 kHz DEV.
4. OTHERS:
➡: Signal route.
⊘: Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.
The underlined indicates the switch position.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.
5. SWITCHES:

THE UNDERLINED INDICATES THE SWITCH POSITION

FL Assembly

S633	TIME +
S634	TIME -
S635	START TIME
S636	STOP TIME
S637	CLOCK ADJUST
S638	SET/NEXT
S639	TIMER PLAY
S640	TIMER REC
S641	TIMER SOURCE
S642	SUPER BASS
S644	POWER
S648	STEREO WIDE

Tact SW Assembly

S601	2-REW
S602	2-R PLAY
S603	1-R PLAY
S604	1-REW
S606	2-PAUSE
S607	2-STOP
S608	1-STOP
S609	1-PAUSE
S611	2-FF
S612	2-F PLAY
S613	1-F PLAY
S614	1-FF
S615	NORMAL COPY
S616	PARALLEL REC
S617	2-REC MUTE
S618	2-REC
S619	1-REC
S620	1-REC MUTE
S621	HI-SPEED COPY
S622	PL/CD SYNC

DOLBY SW Assembly

S623	BALANCE L
S624	BALANCE R
S625	FUNCTION
S626	G E REC
S627	VOLUME +
S628	VOLUME -
S629	MUTING
S630	RELAY REC/PLAY
S631	DOLBY OFF-B C
S632	REV MODE ⇄-⊃-↻

GEQ, E-VR Assembly

IC701, IC702	BA3812L
IC706	CXD1120P
IC704, IC708	M5218PF
IC707	M5220P
IC703, IC705	μPD4066BC
Q701, Q702, Q705, Q706	2SA933S
Q703, Q704, Q707	2SC1740S
Q709-Q711	2SC2240
Q708	2SC2878
D701	HZS6B1L
D702, D703	2-1K261
VR701	ACU1010

A B C D

19 20 21 22 23 24

4. ELECTRICAL PARTS LIST

NOTES:

- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560Ω	*56 × 10¹*	*561 ..... RD¼PS 5 6 1*	*J*
47kΩ	*47 × 10³*	*473 ..... RD¼PS 4 7 3*	*J*
0.5Ω	*0R5*	*..... RN2H 0 R 5*	*K*
1Ω	*010*	*..... RS1P 0 1 0*	*K*

  Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	*562 × 10¹*	*5621 .... RN¼SR 5 6 2 1*	*F*

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★ .*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification should be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Miscellaneous Parts

P.C BOARD ASSEMBLIES

Mark		Symbol & Description	Part No.
⚠	⊙	Power μCOM assembly	AWZ1306
	⊙	GEQ E-VR assembly	AWZ1226
	⊙	TAPE assembly	AWZ1230
		FL assembly	Non suppry
		MIC headphone assembly	Non supply
		Remote sensor assembly	Non supply
		Tact SW assembly	Non supply
		DOLBY SW assembly	Non supply
		DOLBY B/C assembly	Non supply
		Fuse assembly	Non supply

OTHERS

Mark		Symbol & Description	Part No.
⚠	★	T1 Power transformer (AC220/240V)	ATS1058
⚠	★★	S1 Slide switch (POWER)	ASH-501
⚠	★★	FU1 Fuse (T1A/250V)	AEK-402
⚠	★★	FU2 Fuse (T2A/250V)	AEK-017
⚠	★★	FU3 Fuse (T2.5A/250V)	AEK-403
⚠		AC power cord (AC/250V)	ADG-041
⚠		AC socket (AC OUTLETS)	AKP-502
		Remote control unit	AXD1016
	★★	REC/PB head (HADKH5515A)	AZP1011
	★★	Push switch	AXN-035
	★★	Push switch	AZS1001
	★★	Leaf switch (PLAY)	AXN-036
	★	Solenoid	AZS1028
	★★	Motor assembly(Main)	AZX1010
	★★	Motor assembly(Reel)	AZX1009

Power μCOM Assembly (AWZ1306)

SEMICONDUCTORS

Mark		Symbol & Description	Part No.
	★★	IC101	M5218P
	★★	IC104	M5218PF
	★★	IC201	PD3081-A
⚠	★★	IC3	STK4141-2S
	★★	IC205, IC206	TA7780BN
	★★	IC204	TC4019BP
	★★	IC102	TC4052BP
	★★	IC103	TC4066BP
	★★	IC202, IC203	TC9312N-048
⚠	★★	IC2	μPC78M05 H
	★★	Q206, Q257, Q258	RN2203
	★★	Q12	2SA1515
	★★	Q2, Q3, Q7, Q8, Q11, Q16, Q22, Q108, Q203, Q208—Q210	2SA933S
	★★	Q4, Q9, Q13, Q17—Q20, Q23, Q201, Q202, Q204, Q205, Q207, Q211, Q251—Q254, Q259, Q260	2SC1740S
	★★	Q21, Q255, Q256	2SD438
	★★	Q5, Q6, Q25	2SD836A
	★★	Q10, Q212	2SD880
	★★	Q14, Q15	2SJ103
	★	D16, D20	HZS9CIL
⚠	★	D5	RB152
	★	D15	RD13ESB3
	★	D209	RD3.3ESB1
	★	D210	RD7.5ESB2
⚠	★	D6—D9, D212—D215, D251, D252	S5566

	★	D10—D13, D17—D19, D21—D24, D26—D28, D102, D201—D208, D211, D220—D225	1SS131
⚠	★	D4	4D4B44
	★	D29	HZS27-2L

RELAY

Mark		Symbol & Description	Part No.
	★★	RY2	ASR-111 (ASR1005)
⚠	★★	RY1	ASR-516

COILS & TRANSFORMER

Mark		Symbol & Description	Part No.
		L1, L2 AF choke coil	ATH1004
⚠	★	T2 Power transformer	ATT1037

CAPACITORS

Mark	Symbol & Description	Part No.
⚠	C2 (0.01μF/AC150V)	ACG1005
⚠	C1 (0.01μF/AC400V)	ACG1002
⚠	C8, C9 (5600μF/42V)	ACH-291
	C206, C207	CCCCH330J50
	C101, C102, C105, C106, C119, C120	CCCSL101J50
	C25, C26	CCCSL221J50
	C31, C32	CCCSL470J50
	C39	CEANP100M50
	C215, C257, C258	CEAS010M50
	C201, C255, C256, C259—C262	CEAS100M25
	C253, C254	CEAS0R1M50
	C44	CEAS100M50
	C12, C20, C21, C23, C113, C144, C121	CEAS101M10
	C103, C104, C203	CEAS2R2M50
	C107, C108, C213	CEAS220M16
	C43	CEAS471M6
	C17, C24, C47, C209, C211, C212, C214	CEAS221M10
	C263, C264	CEAS221M16
	C18, C19	CEAS222M16
	C48	CEHAQ330M35
⚠	C10	CEAS332M25
	C204	CEAS4R7M50
	C13—C16	CEAS470M16
	C37, C38	CEAS470M50
	C115, C116	CEYA100M25
	C33, C34	CEYANP330M25
	C35, C36	CEYA101M25
	C117, C118	CEYA4R7M50
	C27, C28	CEYA2R2M50
	C40	CEYA470M50
	C205	CKCYB222K50
	C22, C208	CKCYB471K50
	C251, C252	CKCYB822K50
	C3, C11	CKCYF103Z50
	C210	CKCYF473Z50
	C202, C265	CKCYX473M25
	C109, C110	CQMA152K50
	C41, C42	CQMA473K50
	C111, C112	CQMA562K50
	C29, C30	CQMXA102J100

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
⚠	R26, R90	RD1/2PMF□□□J
	R1—R4	RD1/2PM□□□J
⚠	R63, R64, R66—R70	RD1/4PMFL□□□J
⚠	R25, R34, R71, R72, R113, R114	RD1/4PMF□□□J
	R10, R11, R42, R43, R59—R62, R65	RD1/4PM□□□J
⚠	R85	RS1LMF681J
⚠	R15, R16	RS1LMF2R2J
⚠	R8, R44, R239, R277, R278, R9	RS2LMF□□□J
★	VR253,VR254 Semi-fixed(10k)	VRTB6VS103
★	VR251,VR252 Semi-fixed(22k)	VRTB6VS223
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Jack 2P (SURROUND SPEAKERS)	AKB-093
	Jack 6P (PHONO, CD, VIDEO)	AKB-095
	Jack (REMOTE OUT)	AKN-207
	X201 Ceramic resonator	ASS-030
	Terminal 4P (FRONT SPEAKERS)	AKE-109

FL Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC601, IC602	LC7570
★★	IC604	M5218PF
★★	IC605	μPD4001BC
★★	Q620—Q622	2SC1740S
★★	Q625	DTC124ES
★	D624	AEL1027
★	D626	AEL-429
★	D625	AEL1032
★	D627, D628	RD3.3ESB
★	D620—D623, D629—D634, D636	1SS131

SWITCHES

Mark	Symbol & Description	Part No.
★★	S633—S642, S644, S648 Tact switch (TIME(+), TIME(−), START TIME, STOP TIME, CLOCK ADJUST, SET/NEXT, TIMER PLAY, TIMER REC, TIMER SOURCE, SUPER BASS, POWER, STEREO WIDE,)	ASG-711

CAPACITORS

Mark	Symbol & Description	Part No.
	C623, C624	CEJA010M50
	C621, C622	CEJA2R2M50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR621 Variable resistor (10k) (REC LEVEL)	ACS1004
	R631—R633	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
★	V601 FL indicator	AAV1007

GEQ, E-VR Assembly(AWZ1226)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC701, IC702	BA3812L
★★	IC706	CXD1120P
★★	IC704, IC708	M5218PF
★★	IC707	M5220P
★★	IC703, IC705	μPD4066BC
★★	Q701, Q702, Q705, Q706	2SA933S
★★	Q703, Q704, Q707	2SC1740S
★★	Q709—Q711	2SC2240
★★	Q708	2SC2878
★	D701	HZS6B1L
★	D702, D703	2-1K261

CAPACITORS

Mark	Symbol & Description	Part No.
	C713, C714	CEASR15M50
	C758, C761	CEASR22M50
	C717, C718	CEASR47M50
	C759	CEASR68M50
	C760	CEAS0R1M50
	C757	CEAS010M50
	C731, C732, C771	CEAS100M25
	C723—C726, C747	CEAS101M10
	C755	CEAS2R2M50
	C729, C730	CEAS220M16
	C763, C764	CEAS221M10
	C741, C742, C749, C751, C752, C745	CEAS470M10
	C743, C744	CEYA2R2M50
	C753, C754	CEYA4R7M50
	C735, C736	CKCYB103K50
	C769, C770	CEYA220M16
	C707, C708	CKCYB152K50
	C737, C738	CKCYB222K50
	C721, C722	CKCYB331K50
	C711, C712, C739, C740	CKCBY391K50
	C703, C704, C765	CKCYB392K50
	C709, C710	CKCYB682K50
	C705, C706, C715, C716	CKCYX153M25
	C756	CKCYX183M25
	C719, C720	CKCYX393M25
	C746, C748, C750	CKCYX473M25
	C701, C702	CKCYX563M25
	C762	CQMA823K50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR701 Variable resistor (GEQ, E-Volume)	ACU1010
	R759, R760, R795, R796, R711—R714, R739, R740	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

TAPE Assembly (AWZ1230)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC315	M51143AL
★★	IC304, IC305, IC313, IC314	M5218L
★★	IC308—IC312, IC316	M74LS05P
★★	IC307	μPD4011BC (TC4011BP)
★★	IC303, IC306	μPD4066BC (TC4066BP)
★★	IC301, IC302	M5220L
★★	Q313, Q314	DTA124ES
★★	Q329	DTC124ES
★★	Q344, Q345, Q361, Q362	2SA1115
★★	Q316, Q323, Q324, Q338, Q355	2SA933S
★★	Q335—Q337, Q352—Q354	2SA970
★★	Q301—Q309, Q311, Q312, Q315, Q317—Q322, Q325—Q328, Q330, Q331, Q339, Q346—Q349, Q356, Q363—365	2SC1740S
★★	Q333, Q334, Q350, Q351	2SC2240
★★	Q342, Q343, Q359, Q360	2SC2603
★★	Q340, Q341, Q357, Q358	2SD438
★★	Q332, Q366	2SJ103
★	D301—D303, D305—D308	1SS131

COILS & TRANSFORMERS

Mark	Symbol & Description	Part No.
	L309—L312 Trap coil	ATM-037
	T301, T302 Bias OSC transformer	ATX1001
	L313, L314 Inductor	LTA102J
	L301, L302, L305, L306 Inductor	LTA392J
	L303, L304, L307, L308 Inductor	LTA472J

CAPACITORTS

Mark	Symbol & Description	Part No.
	C416, C428	ACE-133
	C307, C308, C325, C326, C343, C344	CCCSL101J50
	C303, C304, C442, C443	CCCSL221J50
	C414, C415, C426, C427	CCCSL221K500
	C301, C302	CCCSL271J50
	C404	CCCSL470J50
	C305, C306, C323, C324	CEANL100M16
	C337, C338, C355, C356, C359, C360	CEASR47M50
	C406, C411	CEAS0R1M50
	C350, C423, C435	CEAS010M50
	C313, C314, C331, C332, C347, C348, C351, C352, C375, C376, C399, C400	CEAS100M25
	C309, C310, C327, C328	CEAS101M10
	C413, C425, C439, C440	CEAS2R2M50
	C441	CEAS220M16
	C319, C320, C335, C336	CEAS471M6
	C405, C407—C410	CEAS3R3M50
	C345, C346	CEAS330M16
	C349, C361—C364	CEAS4R7M50
	C373, C374, C395, C396, C421, C422, C433, C434	CEAS470M10
	C385, C386	CKCVB391K50
	C321, C322, C341, C342, C377, C378, C397, C398	CKCYB471K50
	C412, C424, C426, C437	KCKYF103Z50
	C418, C419, C430, C431	CQMA103J50
	C417, C429	CQMA103K250
	C379, C380	CQMA123J50
	C391, C392, C420, C432	CQMA153J50
	C311, C312, C329, C330, C371, C372, C389, C390	CQMA183J50
	C367—C370, C383, C384	CQMA223J50
	C315, C316, C333, C334, C365, C366, C381, C382	CQMA273J50
	C387, C388, C393, C394	CQMA332J50
	C401, C402	CQMA473J50
	C317, C318	CQMA683J50
	C353, C354, C357, C358	CQMA822J50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R478, R479, R507, R508	RD1/2PM□□□J
	R331, R332, R518, R519	RD1/4PMF470J
	R450	RD1/4PM155J
★	VR309—VR312 (Semi-fixed)	VRTM6H104
★	VR301—VR308 (Semi-fixed)	VRTM6H203
	Other resistors	RD1/8PM□□□J

MIC Headphone Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC105	M5218PF
★★	Q109, Q110	2SC1740S
★	D103, D104	1SS131

CAPACITORS

Mark	Symbol & Description	Part No.
	C127	CCCSL101J50
	C125	CEANL101M50
	C129	CEAS6R8M50
	C132	CEJA010M50
	C131	CEJA100M25
	C123	CEJA101M10
	C130	CEJA220M16
	C124	CEJA470M10
	C128	CKCYB471K50
	C126	CKCYB681K50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR102 (Semi-fixed) 10k	ACS-012
⚠	R86, R87	RD1/2PMF331J
⚠	R179	RD1/4PMF470J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Jack (MIC)	AKN1004
	Jack (HEADPHONE)	AKN1005

Remote Sensor Assembly

SEMIDONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC106	CX20106A
★	D105	PD49P1

CAPACITORS

Mark	Symbol & Description	Part No.
	C133	CEJA010M50
	C134	CEJA010M50
	C136	CEJA3R3M50
	C135	CKCYB331K50

RESISTORS

Mark	Symbol & Description	Part No.
	R195	RN1/4PQ2003F
	R194	RD1/8PM100J
	R196	RD1/8PM223J

OTHERS

Mark	Symbol & Description	Part No.
	Shield plate	ANK1021

Tact SW Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D601, D602, D604, D605	AEL1028
★	D603, D606, D607	AEL1029

SWITCHES

Mark	Symbol & Description	Part No.
★★	S601—S604, S606—S609, S611—S622 Tact switch (1-2 REW, 2-R.PLAY, 1-R. PLAY, 1-REW, 2-PAUSE, 2-1-STOP, 1-PAUSE, 2-FF, 2-F PALY, 1-F PLAY, 1-FF, NORMAL COPY, PARALLEL REC 2, REC MUTE, 2-REC, 1-REC, 1-REC MUTE, HI-SPEED COPY, PL/CD SYNC.)	ASG-711

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	All resistors	RD1/8PM□□□J

DOLBY SW Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D608	AEL-460
★	D609	AEL1003

SWITCHES

Mark	Symbol & Description	Part No.
★★	S623—S630 Tact switch (BALANCE, (L), BALANCE (R), FUNCTION, G, E, REC, VOLUME (+), VOLUME(−), MUTING, RELAY PLAY/REC)	ASG-711
★★	S632 Slide switch (REV MODE)	ASH1011
★★	S631 Slide switch (DOLBY)	ASH1012

RESISTORS

Mark	Symbol & Description	Part No.
	R608, R609	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

DOLBY B/C Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC541	CX20187

FILTERS & COILS

Mark	Symbol & Description	Part No.
	F541, F542 DOLBY filter	ATF1014
	L543, L544 Inductor	ATH1017
	L541, L542 Inductor	ATH1018

CAPACITORS

Mark	Symbol & Description	Part No.
	C535, C536	CCCSL221J50
	C517, C518	CEASR47M50
	C533, C543	CEAS100M25
	C501, C502	CEAS101M10
	C509, C510	CEAS2R2M50
	C507, C508	CEYA100M16
	C505, C506	CEYA2R2M50
	C511, C512	CKCYB561K50
	C503, C504	CKCYF223Z50
	C531, C532	CQMA103J50
	C521, C522	CQMA153J50
	C519, C520	CQMA154J50
	C523, C524	CQMA224J50
	C513, C514	CQMA302J50
	C515, C516	CQMA472J50
	C527, C528	CQMA473J50
	C529, C530	CQMA682J50
	C525, C526	CQMA683J50

RESISTORS

NOTE: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	All resistors	RD1/8PM□□□J

Fuse Assembly

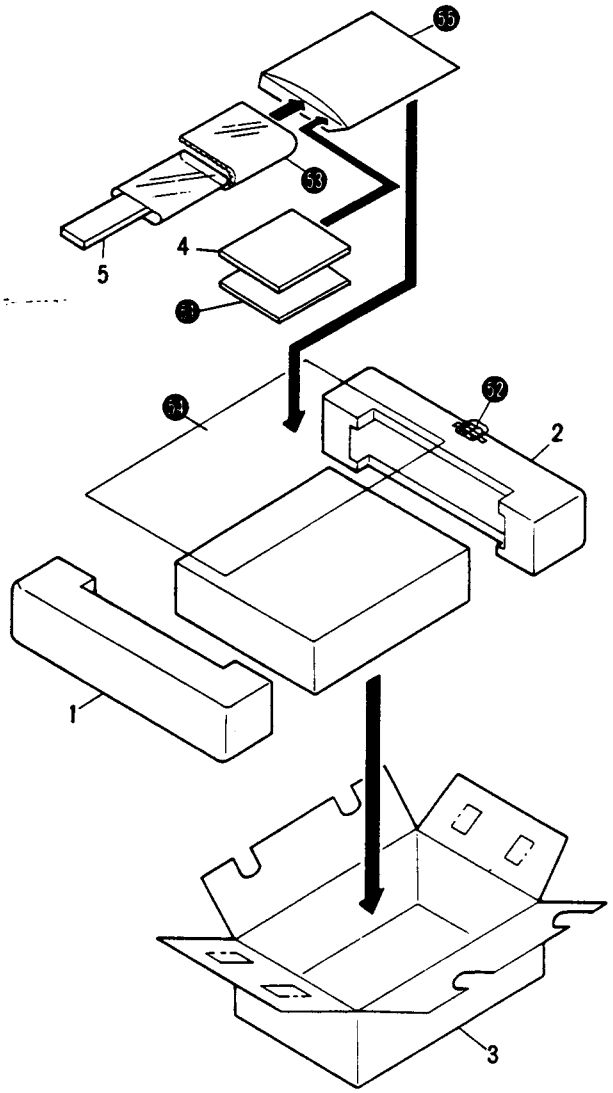
CAPACITOR

Mark	Symbol & Description	Part No.
⚠	C138 (0.01μF/AC400V)	ACG1002

5. PACKING

Parts List

Mark	No.	Part No.	Description
	1	AHA1038	Front pad
	2	AHA1039	Rear pad
	3	AHD1170	Packing case
	4	ARE1040	Operating instructions (English/German/French/ Italian)
	5	AXD1016	Remote control unit
	51		Warranty card
	52		Battery assembly
	53		Air cap
	54		Packing sheet
	55		Envelope



6. FOR HB AND SD TYPES

CONTRAST OF MISCELLANEOUS PARTS

The DC-X99Z/HB and SD types are the same as the DC-X99Z/HE type with the exception of the following sections.

Mark	Symbol & Description	Part No. DC-X99Z HE type	Part No. DC-X99Z HB type	Part No. DC-X99Z SD type	Remarks
⚠ ⊙	Power μCOM Assemlby	AWZ1306	AWZ1306	AWZ1331	
⚠	Fuse Assembly	Non supply	Non supply	Non supply	
⚠	AC power cord	ADG-041	ADG-051	ADG1015	
⚠	Strain relief	AEC-882	AEC-882	.....	
⚠	AC socket (AC OUTLET)	AKP-502	AKP-505	AKP-515	
	MIC headphone assembly	Non supply	Non supply	Non supply	
⚠ ★★	F1 Fuse (T1A/250V)	AEK-402	AEK-508	.....	
⚠ ★★	F1 Fuse (T1.6A/250V)	.....	.....	AEK-405	
⚠ ★★	F2 Fuse (T2A/250V)	AEK-017	AEK-511	AEK-017	
⚠ ★★	F3 Fuse (T2.5A/250V)	AEK-403	AEK-512	.....	
⚠ ★★	F3 Fuse (T1.6A/250V)	.....	.....	AEK-405	
⚠ ★	T1 Power transformer (AC220/240V)	ATS1058	ATS1058	.....	
⚠ ★	T1 Power transformer (AC110/120-127/220/240V)	.....	.....	ATS1057	
⚠ ★★	S2 Voltage selector (AC110/120-127/220/240V)	.....	.....	AKX-507	
⚠ ★★	S3 Voltage selector (AC110/120-127/220/240V)	.....	.....	AKX1007	
	Screw	.....	.....	VBZ30P100FMC	
	Cushion rubber	.....	.....	AEB1003	
	Operating instructions (English, German, French, Italian)	ARE1040	.....	.....	
	Operating instructions (English)	.....	ARB1049	ARB1055	
	Operating instructions (Spanish-auxiliary)	.....	.....	ARC1030	
	Rear panel	Non supply	Non supply	Non supply	
	Heat sink	.....	.....	Non supply	
	Heat-sink holder	.....	.....	Non supply	

POWER μCOM ASSEMBLY (AWZ1331)

The power μCOM assembly (AWZ1331) is the same as the power μCOM assembly (AWZ1306) with the exception of the following sections.

Mark	Symbol & Description	Part No. AWZ1306 HE/HB types	Part No. AWZ1331 SD type	Remarks
⚠ ★★	IC3	STK4141-2S	STK4191-5S	
⚠	R90	RD1/2PMF4R7J	RD1/2PMF100J	
	R55, R56	RD1/8PM102J	RD1/8PM911J	
⚠	R85	RS2LMF471J	RS2LMF911J	
⚠	C8, C9	ACH-291	ACH-258	
⚠ ★	T2	ATT1037	ATT1036	
⚠ ★★	RY2	ASR-111 (ASR1005)	ASR-109 (ASR-112)	
	C49, C50	.....	CCCSL010C50	

FUSE ASSEMBLY

The fuse assembly for SD type is the same as the fuse assembly for HE/HB types with the exception of the following sections.

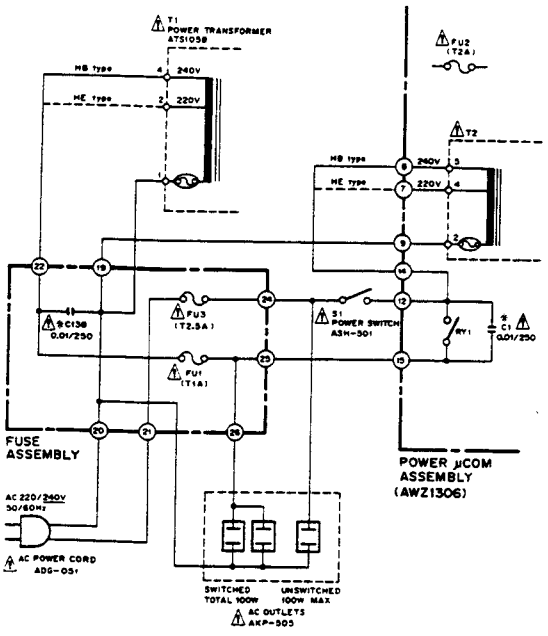
Mark	Symbol & Description	Part No.		Remarks
		HE/HB types	SD type	
	Terminal	Non supply	.....	

MIC HEADPHONE ASSEMLBLY

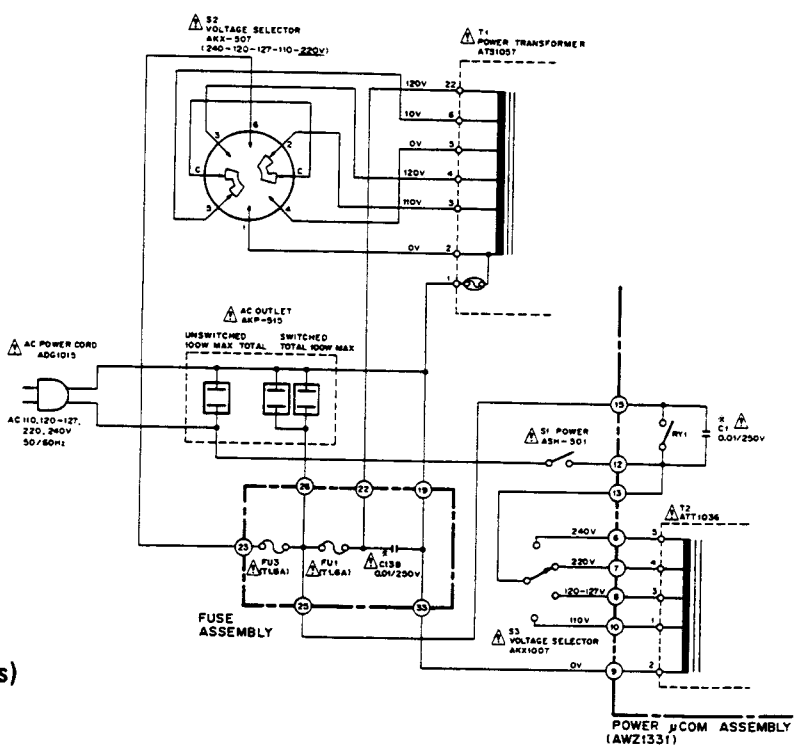
The MIC headphone assembly for SD type is the same as the MIC headphone assembly for HE/HB types with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HE/HB types	SD type	
⚠	R86, R87	RD1/2PMF331J	RD1/2PMF681J	
⚠	R88, R89	.....	RD1/2PMF681J	

Schematic Diagram of HB type



Schematic Diagram of SD type



Line Voltage Selection (For HE and HB types)

Line voltage can be changed with following steps.

1. Disconnect the AC Power cord.
2. Remove the Bonnet case.
3. Change the connection of the primary lead wires. (Connect as shown in Fig. above (left).)
4. Stick the line voltage label on the rear panel.

Description	Part No.
220V label	AAX-193
240V label	AAX-192

7. ADJUSTMENTS

7.1 MECHANICAL SECTION ADJUSTMENT

1. Tape speed adjustment (Normal-speed adjustment after double-spped adjustment is performed.)			
Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)
PLAY	Play back 3kHz section of STD-301 (DECK-I)	VR253 (double speed) VR251 (normal speed)	Adjust so that it becomes 6030Hz. (Short-circuit TP27 and TP29 after playback.) Adjust so that it becomes 3015Hz. (Press the PLAY switch.)
	Play back 3kHz section of STD-301 (DECK-II)	VR254 (double speed) VR252 (normal speed)	Adjust so that it becomes 6030Hz. (Short-circuit TP28 and TP29 after playback.) Adjust so that it becomes 3015Hz. (Press the PLAY switch.)
2. Tape path adjustment			
Mode	Adjusting points	Specifications	
FWD REV	FWD azimuth adjustment screw REV azimuth adjustment screw	Playback 10kHz, -20dB with STD-331 test tape. Adjust so that the signal output at test points of TP501 and TP502 becomes maximum.	
Load the cassette, then lift the head base with your hand so that tape contacts the tape guide.			
STOP	Height adjustment screws (left and right)	Visually check whether tape is on tape guide center.	
FWD PLAY	FWD height adjustment screw	Adjust primary tape guide so that tape is not curled.	
REV PLAY	REV height adjustment screw		

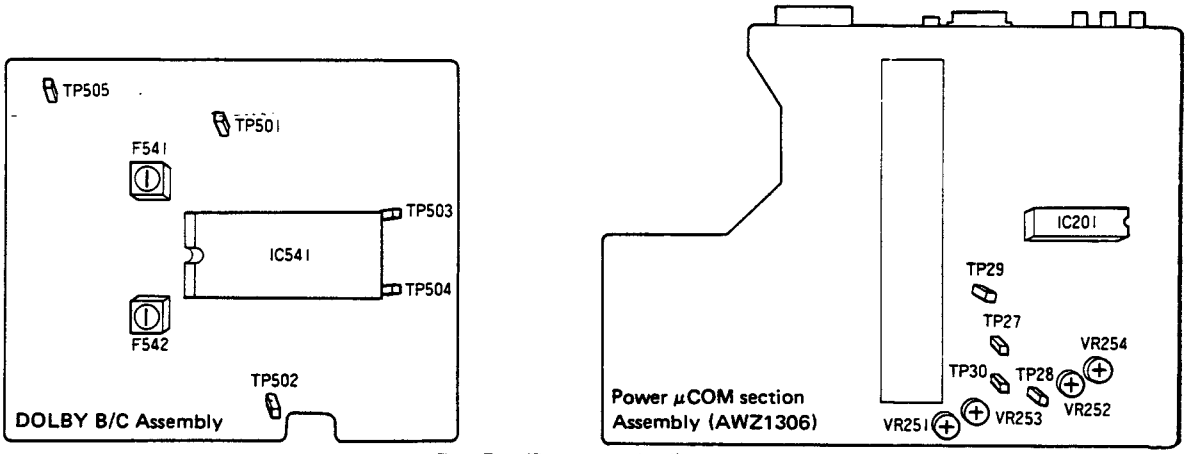


Fig. 7-1 Tape speed adjustment

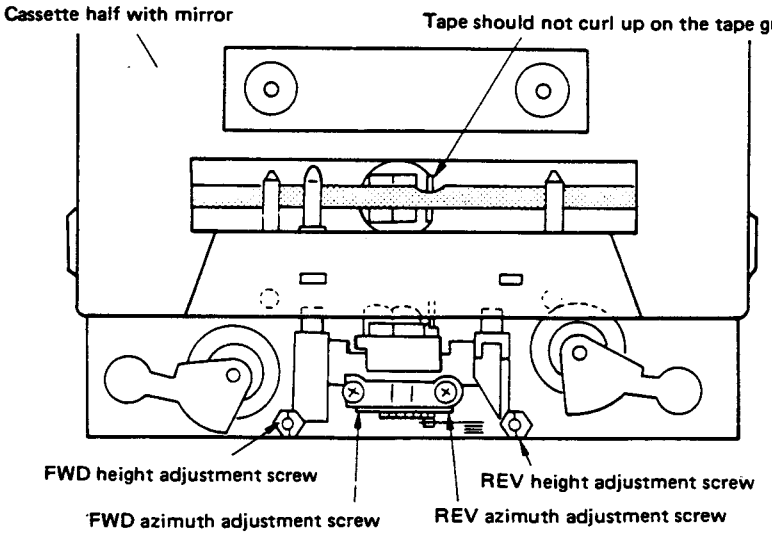


Fig. 7-2 Tape path adjustment

7.2 ELECTRICAL ADJUSTMENT

Adjustment Conditions

1. Mechanism section adjustment should have been completed first.
2. Heads should be cleaned and demagnetized.
3. Aging of deck should be performed for at least 2–3 minutes before starting electrical adjustment.
4. Reference signal should be set to 0dB=1Vrms.
5. The following switch setting should not be changed, unless otherwise indicated:
   DOLBY NR: OFF

Test Tapes

STD-331B: Playback adjustment (See Fig. 7-3.)
STD-608A: Blank normal tape
STD-620: Blank chrome tape
STD-610: Blank metal tape

Deck I

1. Head angle adjustment
2. Playback level adjustment
3. Recording/playback frequency characteristics adjustment
4. Recording level adjustment

Deck II

1. Head angle adjustment
2. Playback level adjustment
3. Recording/playback frequency characteristics adjustment
4. Recording level adjustment

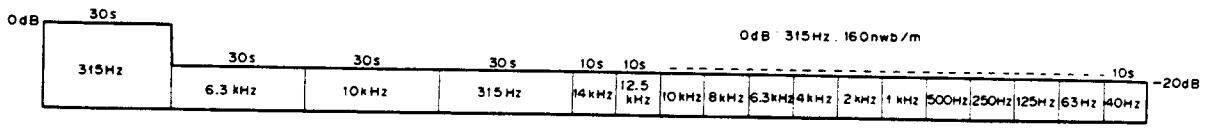


Fig. 7-3 STD-331B test tape

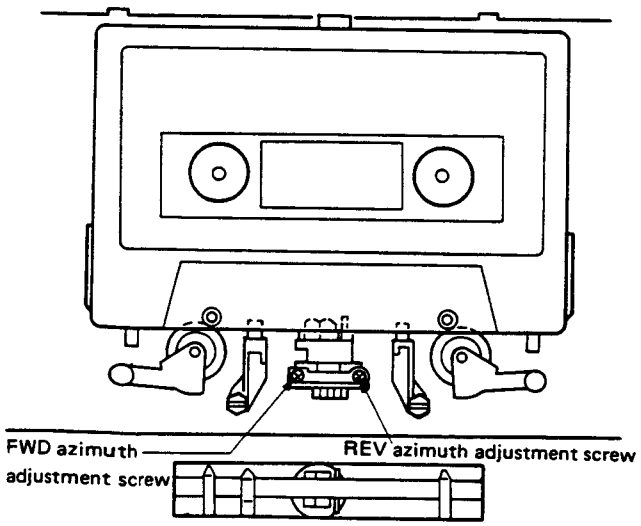


Fig. 7-4 Head azimuth adjustment

Test tape	STD-331B
DOLBY NR switch	OFF

• Due to edge effect 63Hz/1dB compensation has been applied on the right side.

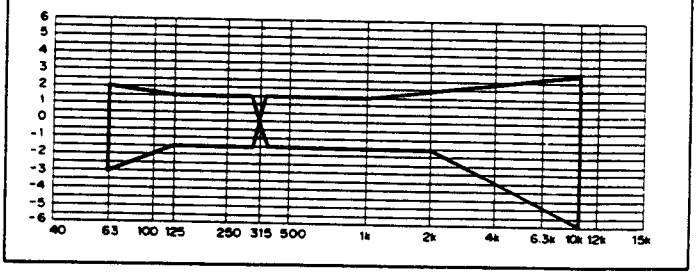


Fig. 7-5 Playback frequency-response allowance rance

● Deck I adjustment

• This unit incorporates auto tape selector.

1. Head angle adjustment

• Turn VR301 and VR302 (playback level adjustment VRs) fully clockwise (MAX. position).

Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	PLAY	Play back 10kHz, -20dB with STD-331B test tape		Head angle adjustment screw (Fig. 7-4)	TP501 (L) TP502(R)	Maximum playback signal level	Lock screw after completion of adjustment.

2. Playback level adjustment

• This adjustment is set Dolby level during playback, so the adjustment should be performed carefully.

Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	PLAY	Play back 315Hz, 0dB with test tape STD-331B		VR301 (L) VR302(R)	TP501 (L) TP502(R)	-10.2dBV (309mV)	

3. Recording/Playback frequency characteristics adjustment

• This adjustment is set to recording bias, so care should be taken to avoid distortion factor deterioration due to under-bias operation.

Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal.	1	Input signal level	TP501 (L) TP502(R)	-30.2dBV (31mV)	Set recording level VR to center position.
NORM	REC/PLAY	Record and play back 315Hz, 10kHz with STD-608A test tape	2	VR309 (L) VR310(R)	TP501 (L) TP502(R)	Record and play back repeatedly, making corrections so as to obtain a 0±0.5dB 10kHz playback level of the recorded 315Hz signal.	

• Select test tape/DOLBY NR switch, and frequency characteristics zone shown in Fig. 7-7 should be satisfied.

4. Recording level adjustment

Tape selector	Mode	Input signal/test tape		Adjusting point	Measuring points	Adjusting value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal	1	Input signal level	TP501 (L) TP502(R)	-10.2dBV (309mV)	
NORM	REC/PLAY	Perform recording and playback of 315Hz to STD-608A test tape	2	VR305 (L) VR306(R)	TP501 (L) TP502(R)	Record and playback repeatedly, making corrections so that playback level of the 315Hz signal is -10.2dBV (309mV).	
METAL	REC/PLAY	Perform recording and playback of 315Hz to STD-610 test tape	3		TP501 (L) TP502(R)	Confirm that playback level of the 315Hz signal is -10.2dBV±2dB.	

● Deck II adjustment

• This unit incorporates auto tape selector.

1. Head angle adjustment

• Turn VR303 and VR304 (playback level adjustment VRs) fully colockwise (MAX. position).

Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	PLAY	Playback 10kHz, -20dB with STD-331B test tape		Head angle adjustment screw (Fig. 7-4)	TP501 (L) TP502(R)	Maximum playback signal level	Lock screw after completion of adjustment

2. Playback level adjustment

• This adjustment sets Dolby level during playback, so should be performed carefully.

Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	PLAY	Playback 315Hz, 0dB with STD-331B test tape		VR303 (L) VR304(R)	TP501 (L) TP502(R)	-10.2dBV (309mV)	

3. Recording/Playback frequency characteristics adjustment

• This adjustment is set to recording bias, so care should be taken to avoid distortion factor deterioration due to under-bias operation.

Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal	1	Input signal level	TP501 (L) TP502(R)	-30.2dBV (31mV)	Set recording level VR to center position.
NORM	REC/PLAY	Record (315Hz) and playback 315Hz, 10kHz to STD-608A test tape	2	VR311 (L) VR312(R)	TP501 (L) TP502(R)	Record and playback repeatedly, making corrections so as to obtain 0±0.5dB 10kHz playback level of the recorded 315Hz signal.	

• Select test tape, DOLBY NR switch and frequency characteristics zone shown in Fig. 7-7 should be satisfied.

4. Recording level adjustment

Tape selector	Mode	Input signal/test tape		Adjusting points	Measuring points	Adjustment value	Remarks
NORM	REC	Input 315Hz signal to VIDEO terminal	1	Input signal level	TP501 (L) TP502(R)	-10.2dBV (309mV)	
NORM	REC/PLAY	Perform recording and playback of 315Hz of STD-608A test tape	2	VR307(L) VR308(R)	TP501 (L) TP502(R)	Record and playback repeatedly, making corrections so that the playback of 315Hz signal is -10.2dBV (309mV).	
METAL	REC/PLAY	Perform recording and playback of 315Hz to STD-610 test tape	3		TP501 (L) TP502(L)	Confirm that playback level of the 315Hz signal is -10.2dBV±2dB.	

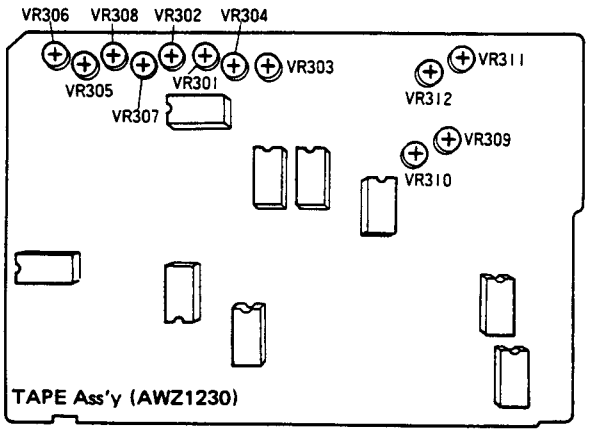
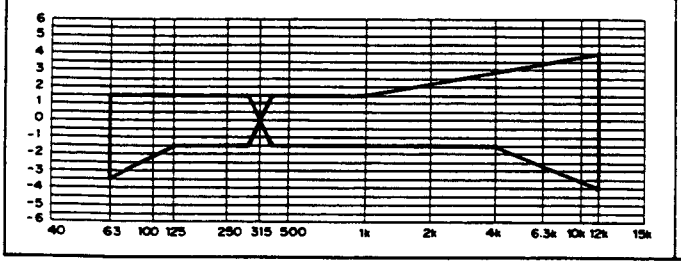
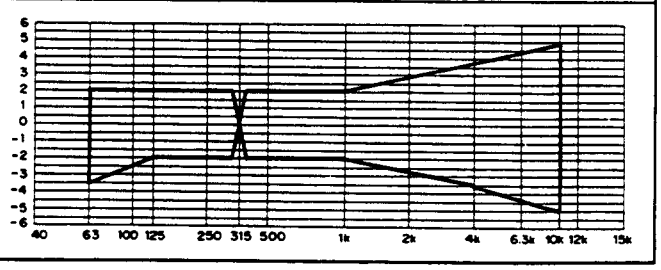


Fig. 7-6 Deck I, Deck II adjustment

Test tape	STD-608A
DOLBY NR switch	OFF



Test tape	STD-608A
DOLBY NR switch	B



Test tape	STD-608A
DOLBY NR switch	C

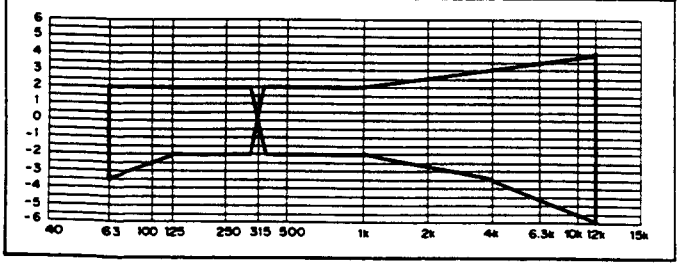
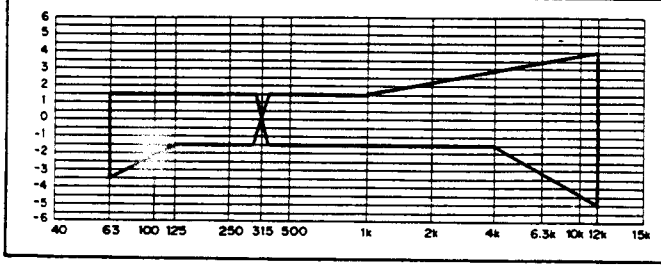
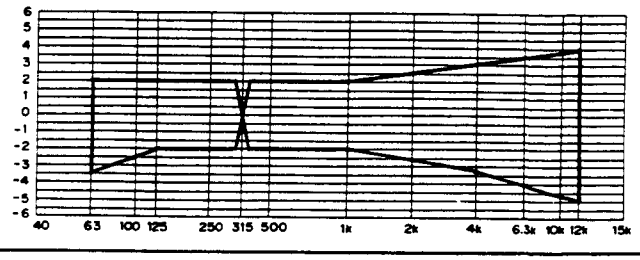


Fig. 7-7-1 Recording/Playback frequency-response allowance range (NORM)

Test tape	STD-620
DOLBY NR switch	OFF



Test tape	STD-620
DOLBY NR switch	B



Test tape	STD-620
DOLBY NR switch	C

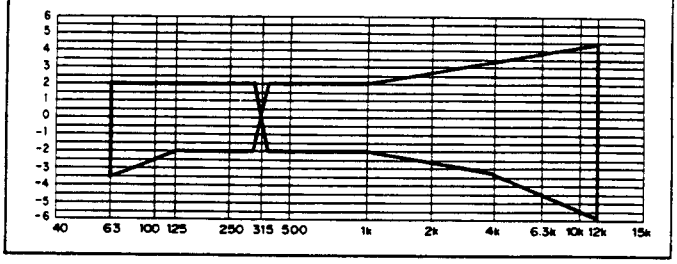
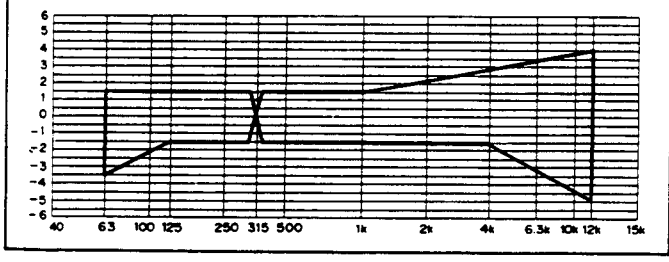
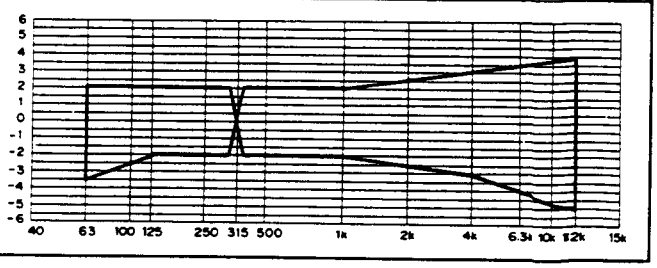


Fig. 7-7-2 Recording/Playback frequency-response allowance range (CrO_2)

Test tape	STD-610
DOLBY NR switch	OFF



Test tape	STD-610
DOLBY NR switch	B



Test tape	STD-610
DOLBY NR switch	C

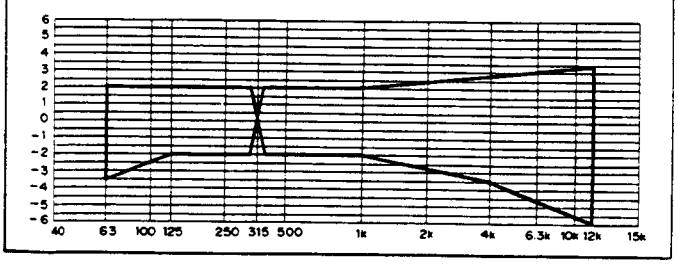


Fig. 7-7-3 Recording/Playback frequency-response allowance range (METAL)

7. RÉGLAGE

7.1 PROCEDURES DE RÉGLAGE

1. Réglage de la vitesse de défilement de la bande (effectuer le réglage de la vitesse double avant le réglage de la vitesse normale)			
Mode	Bande test	Points de réglage	Spécifications/valeurs (fréquence de lecture)
PLAY	Section 3 kHz de la bande STD-301 (Platine I)	VR253 (vitesse double)	Régler sur 6030 Hz (court-circuiter TP27 et TP29 après la lecture)
		VR251 (vitesse normale)	Régler sur 3015 Hz (appuyer sur la touche PLAY)
	Section 3 kHz de la bande STD-301 (Platine II)	VR254 (vitesse double)	Régler sur 6030 Hz (court-circuiter TP28 et TP29 après la lecture)
		VR252 (vitesse normale)	Régler sur 3015 Hz (appuyer sur la touche PLAY)

2. Réglage du parcours de la bande		
Mode	Points de réglage	Spécifications
FWD	Vis de réglage de l'azimuth lors de l'avance rapide	Lecture d'une tonalité de 10 kHz à -20 dB en utilisant la bande test STD-331.
REV	Vis de réglage de l'azimuth lors du rebobinage	Régler pour obtenir un niveau de sortie maximum sur les points test TP501 et TP502.
Mettre en place une cassette, soulever ensuite la bass de la tête avec le doigt de manière à ce que la bande entre en contact avec le guide de bande.		
STOP	Vis de réglage de hauteur (gauche et droit)	Vérifier visuellement que la bande se trouve au centre du guide de bande.
FWD PLAY	Vis de réglage de la hauteur lors de l'avance rapide	Régler le guide bande primaire de manière à ce que la bande n'ondule pas.
REV PLAY	Vis de réglage de la hauteur lors du rebobinage	

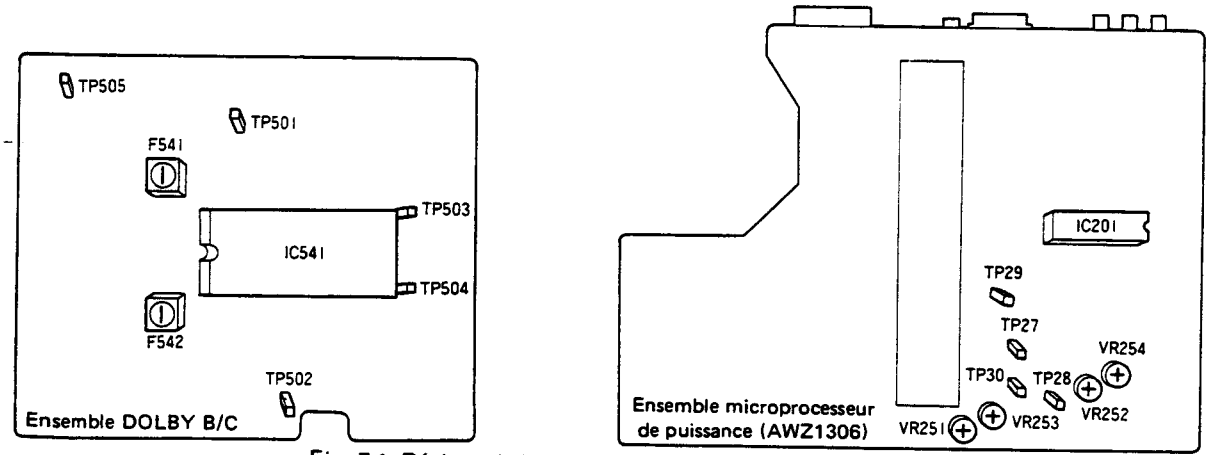


Fig. 7-1 Réglage de la vitesse de défilement de la bande

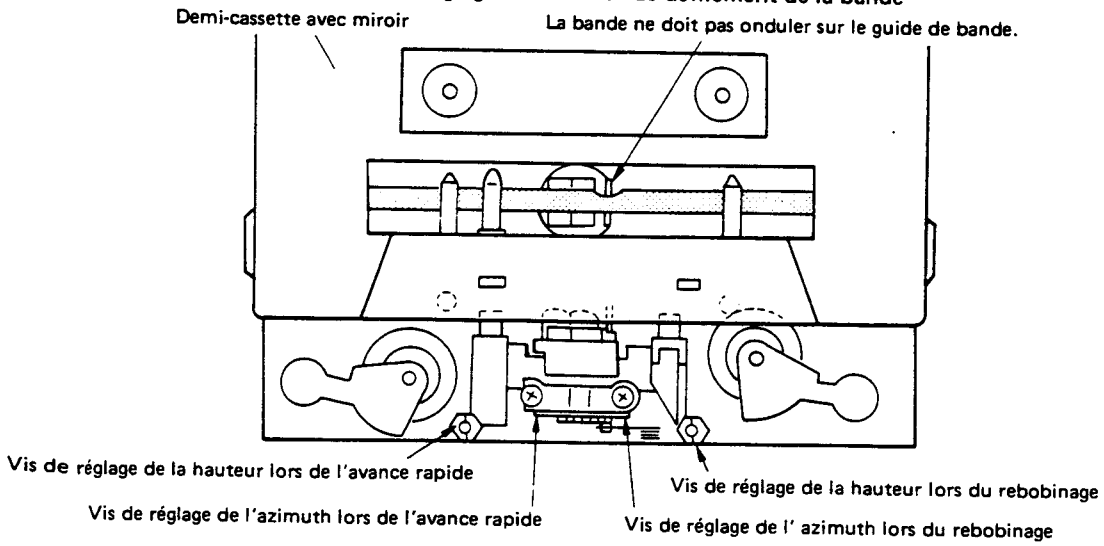


Fig. 7-2 Réglage du parcours de la bande

7.2 RÉGLAGES ELECTRIQUES

Conditions de réglage

1. Effectuer en premier lieu les réglages méchaniques.
2. Les têtes doivent être propres et démagnétisées.
3. La platine doit être sous tension depuis 2 à 3 minutes minimum avant de commencer les réglages électriques.
4. Il faut utiliser un signal de référence de 0 dB, 1V off.
5. Ne pas modifier la position du commutateur suivant, sauf mention contraire:
   DOLBY NR: sur la position OFF

Bandes test

STD-331B: Réglage de la lecture (se reporter à la Fig. 7-3)
STD-608A: Bande vierge de type normal
STD-620: Bande vierge de type chrome
STD-610: Bande vierge de type métal

Platine I

1. Réglage de l'inclinaison de la tête
2. Réglage du niveau de lecture
3. Réglage de la fréquence d'enregistrement/lecture
4. Réglage du niveau d'enregistrement

Platine II

1. Réglage de l'inclinaison de la tête
2. Réglage du niveau de lecture
3. Réglage de la fréquence d'enregistrement/lecture
4. Réglage du niveau d'enregistrement

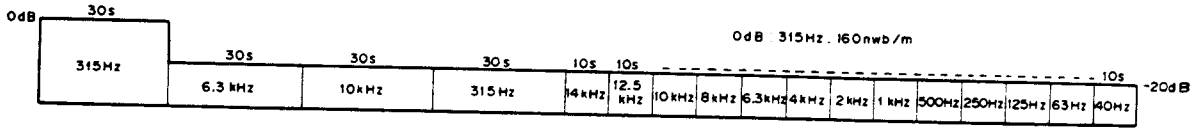


Fig. 7-3 Bande test STD-331B

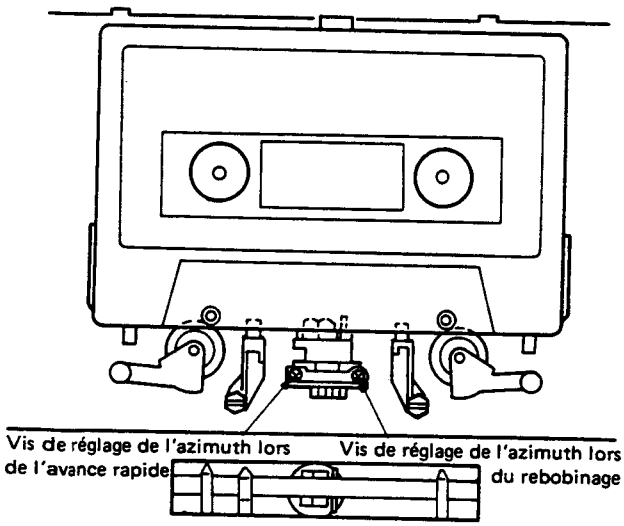


Fig. 7-4 Réglage de l'azimuth de la tête

Bande test	STD-331B
Commutateur DOLBY NR	OFF

• La correction de l'effet de bord à 63 Hz/1 dB à été effectuée sur le côté droit.

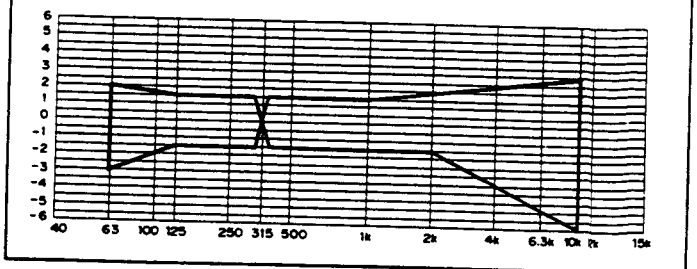


Fig. 7-5 Tolérance de la réponse en fréquence lors de lalecture

● Réglage de la platine I

• Cet appareil est équipé d'un sélecteur automatique de type de bande.

1. Réglage de l'inclinaison de la tête

• Torner VR301 et VR302 (résistances variables de réglage du niveau de lecture) à fond dans le sens des aiguilles d'une monte (position MAX.).

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	10 kHz, -20 dB (lecture)/STD-331B		Vis de réglage de l'inclinaison de la tête (Fig. 7-4)	TP501 (L) TP502(R)	Niveau maximu du signal de lecture	Bloquer la vis après réglage.

2. Réglage du niveau de lecture

• Ce réglage agit sur le niveau de lecture Dolby et doit donc être effectué avec soin.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	315 kHz, 0 dB (lecture)/STD-331B		VR301 (L) VR302(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)	

3. Réglage de la fréquence d'enregistrement/lecture

• Ce réglage agit sur la polarisation pour enregistrement et doit donc être effectué avec soin pour éviter la distorsion provoquée lors du functionnement avec polarisation trop faible.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1	Niveau du signal d'entrée	TP501 (L) TP502(R)	-30,2dBV (31mV)	Placer la résistance ajustable de réglage du niveau d'enregistrement en position médiane.
NORM	REC/PLAY	315 Hz (enregistrement) et 10 kHz (lecture)/ STD-608A	2	VR309 (L) VR310(R)	TP501 (L) TP502(R)	Enregistrer et effectuer la lecture de façon répétée, en faisant de corections de manière à ce que le niveau de lecture soit de 0 ± 0,5 dB à 10 kHz correspondant au signal de 315 Hz enregistré.	

• Les courbes de fréquence de la Fig. 7-7 doivent être atteintes pour chaque combinaison de bande test/position du commutateur DOLBY NR.

4. Réglage du niveau d'enregistrement

Sélecteur de type de bande	Mode	Signal d'entrés/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1	Niveau du signal d'entrée	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315 Hz (enregistrement & lecture)/STD-608A	2	VR305 (L) VR306(R)	TP501 (L) TP502(R)	Enregistrer et effectuer la lecture de façon répétée, en effectuant des corrections de manière à ce que le niveau de lecture soit de -10,2dBV (309mV) pour le signal 315 Hz.	
METAL	REC/PLAY	315 Hz (enregistrement & lecture)/STD610	3		TP501 (L) TP502(R)	Vérifier que le niveau de lecture du signal de 315 Hz est de -10,2 dBV b 2 dB.	

● Réglage de la platine II

• Cet appareil est équipé d'un sélecteur automatique de type de bande.

1. Réglage de l'inclinaison de la tête

• Tourner VR303 et VR304 (résistances variables de réglage du niveau de leoture) à fond dans le sens des aiguilles d'une montre (position MAX.).

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	10 kHz, -20 dB (lecture)/STD-331B		Vis de réglage de l'inclinaison de la tête (Fig. 7-4)	TP501 (L) TP502(R)	Niveau maximu du signal de lecture	Bloquer la vis après réglage.

2. Réglage du niveau de lecture

• Ce réglage agit sur le niveau de lecture Dolby et doit donc être effectué avec soin.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	PLAY	315 kHz, 0 dB (lecture)/STD-331B		VR303 (L) VR304(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)	

3. Réglage de la fréquence d'enregistrement/lecture

• Ce réglage agit sur la polarisation pour enregistrement et doit donc être effectué avec soin pour éviter la distorsion provoquée lors du fonctionnement avec polarisation trop faible.

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1	Niveau du signal d'entrée	TP501 (L) TP502(R)	-30,2dBV (31mV)	Placer la résistance ajustable de réglage du niveau d'enregistrement en position médiane.
NORM	REC/PLAY	315 Hz (enregistrement) et 10 kHz (lecture)/ STD-608A	2	VR311 (L) VR312(R)	TP501 (L) TP502(R)	Enregistrer et effectuer la lecture de façon répétée, en faisant des corrections de manière à ce que le niveau de lecture soit de 0 ± 0,5 dB à 10 kHz correspondant au signal de 315 Hz enregistré.	

• Les courbes de fréquence de la Fig. 7-7 doivent être atteintes pour chaque combinaison de bande test/position du commutateur DOLBY NR.

4. Réglage du niveau d'enregistrement

Sélecteur de type de bande	Mode	Signal d'entrée/ bande test		Points de réglage	Points de mesure	Valeur de réglage	Remarques
NORM	REC	315 kHz sur la prise VIDEO	1	Niveau de signal d'entrée	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315 Hz (enregistrement & lecture)/STD-608A	2	VR307 (L) VR308(R)	TP501 (L) TP502(R)	Enregistrer et effectuer la lecture de façon répétée, en effectuant des corrections de manière à ce que le niveau de lecture soit de -10,2dBV (309mV) pour le signal 315 Hz.	
METAL	REC/PLAY	315 Hz (enregistrement & lecture)/STD-610	3		TP501 (L) TP502(R)	Vérifier que le niveau de lecture du signal de 315 Hz est de -10,2 dBV ± 2 dB.	

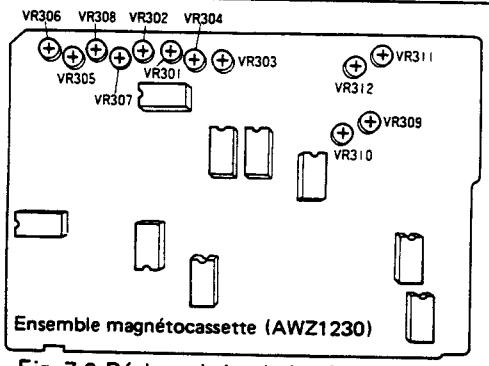
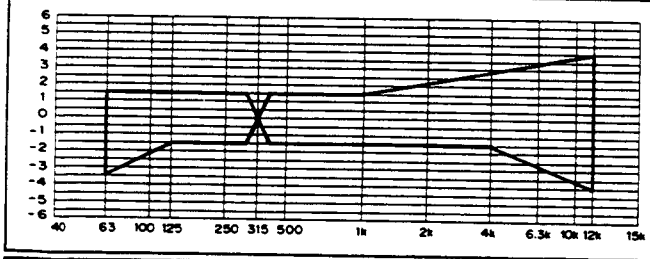
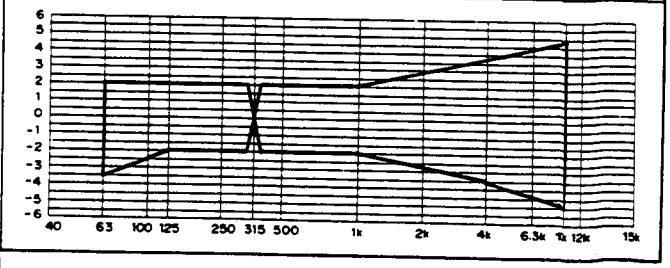


Fig. 7-6 Réglage de la platine I, platine II

Bande test	STD-608A
Commutateur DOLBY NR	OFF



Bande test	STD-608A
Commutateur DOLBY NR	B



Bande test	STD-608A
Commutateur DOLBY NR	C

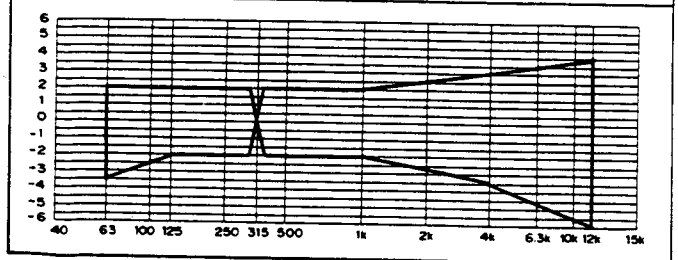
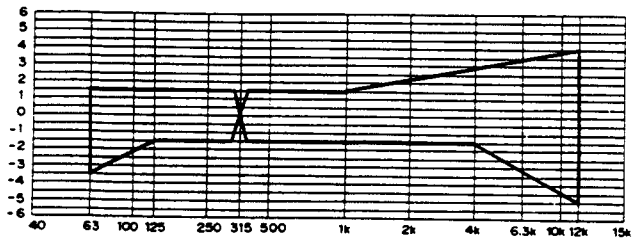
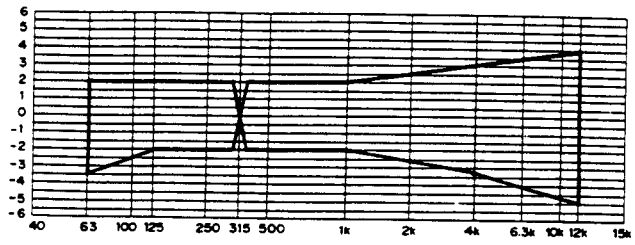


Fig. 7-7-1 Tolérance de la réponse en fréquence d'enregistrement/lecture (NORM)

Bande test	STD-620
Commutateur DOLBY NR	OFF



Bande test	STD-620
Commutateur DOLBY NR	B



Bande test	STD-620
Commutateur DOLBY NR	C

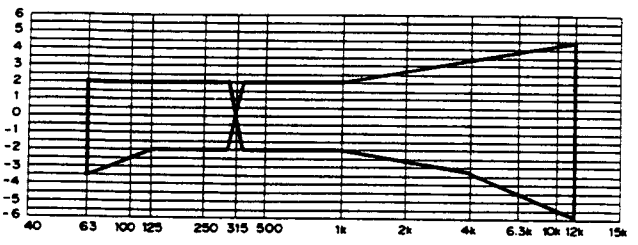
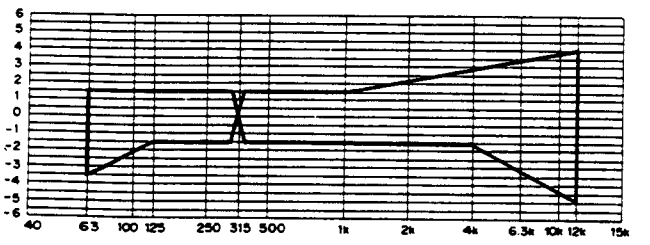
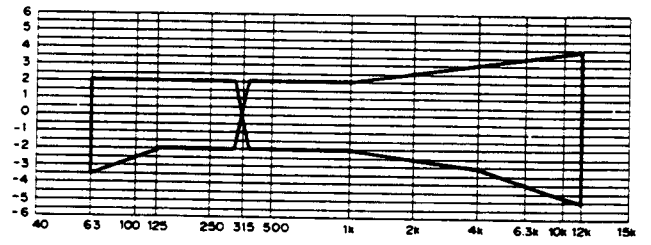


Fig. 7-7-2 Tolérance de la réponse en fréquence d'enregistrement/lecture (CrO_2)

Bande test	STD-610
Commutateur DOLBY NR	OFF



Bande test	STD-610
Commutateur DOLBY NR	B



Bande test	STD-610
Commutateur DOLBY NR	C

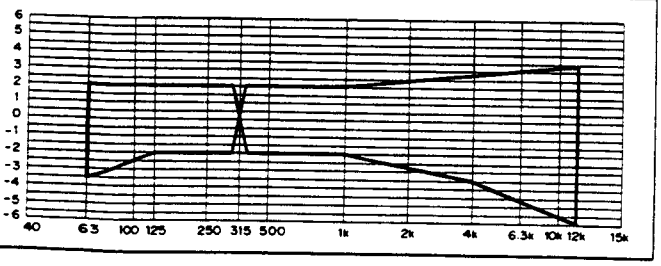


Fig. 7-7-3 Tolérance de la réponse en fréquence d'enregistrement/lecture (METAL)

7. AJUSTE

7.1 PROCEDIMIENTOS DE AJUSTE

1. Ajuste de velocidad de cinta (realizar el ajuste de velocidad doble antes que el de velocidad normal)			
Modo	Cinta de prueba	Puntos de ajuste	Especificaciones/Valores nominales (frecuencia de reproducción)
PLAY	Sección de 3kHz del STD-301 (platina I)	VR253 (velocidad doble) VR251 (velocidad normal)	Ajustar a 6030 Hz (cortocircuitar TP27 y TP29 después de la reproducción). Ajustar a 3015 Hz (presionar el interruptor PLAY)
	Sección de 3kHz del STD-301 (platina II)	VR254 (velocidad doble) VR252 (velocidad normal)	Ajustar a 6030 Hz (cortocircuitar TP28 y TP29 después de la reproducción). Ajustar a 3015 Hz (presionar el interruptor PLAY)
2. Ajuste del recorrido de la cinta			
Modo	Puntos de ajuste		Especificaciones
FWD REV	Tornillo de ajuste de azimuth de FWD Tornillo de ajuste de azimuth de REV		Reproducción de 10kHz, -20dB con cinta de prueba STD-331. Ajustar a máxima salida de señal en los puntos de prueba TP501 y TP502.
Insertar el cassette y levantar la base de cabeza con el dedo de modo que la cinta toque la guía de cinta.			
STOP	Tornillos de ajuste de altura (izquierdo y derecho)		Verificar visualmente si la cinta está sobre la guía de cinta.
FWD PLAY	Tornillo de ajuste de altura de FWD		Ajustar la guía primaria de modo que en la cinta no se forme rizo.
REV PLAY	Tornillo de ajuste de altura de REV		

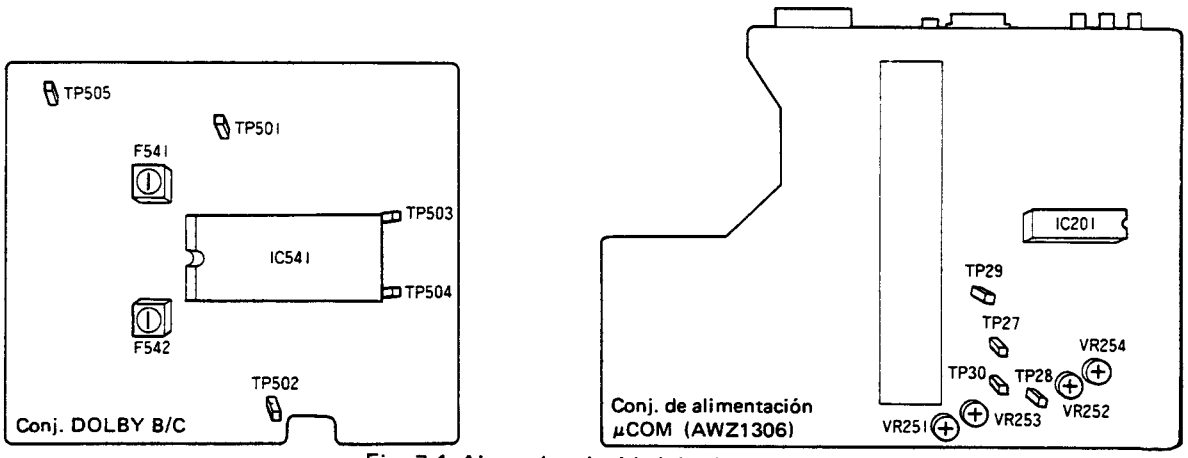


Fig. 7-1 Ajuste de velocidad de cinta

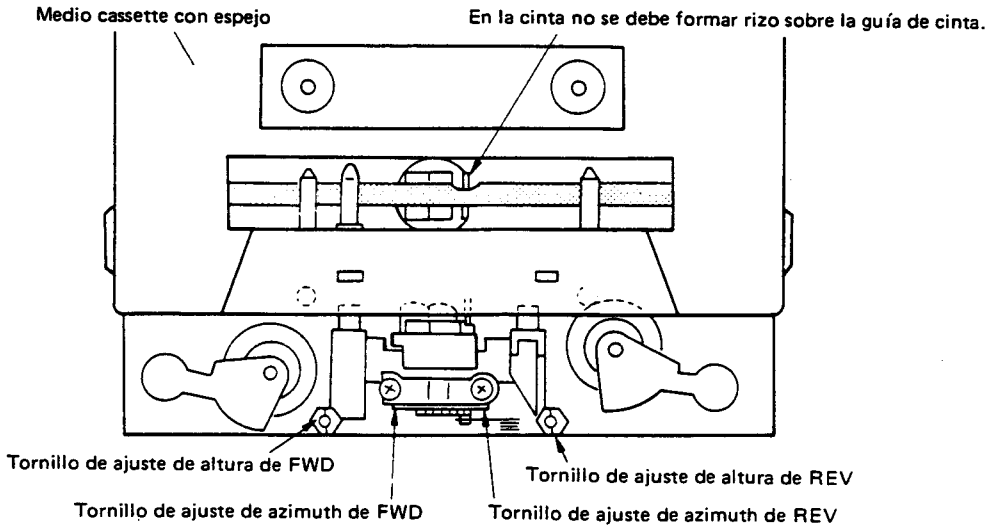


Fig. 7-2 Ajust del recorrido de la cinta

7. 2 AJUSTE ELECTRICO

Condiciones de ajuste

1. El ajuste del mecanismo debe finalizarse primero.
2. Las cabezas debe estar limpias y desmagnetizadas.
3. El magnetófono debe envejecerse por al menos 2–3 minutos antes de comenzar el ajuste eléctrico.
4. Debe emplearse una señal de referencia de 0 dB, 1 Vrms.
5. La siguiente posición de conmutador no debe cambiarse, excepto cuando se indique lo contrario:
   DOLBY NR: OFF

Cintas de prueba

STD-331B: Ajuste de reproducción (ver Fig. 7-3)
STD-608A: Cinta virgen normal
STD-620: Cinta virgen de CrO_2
STD-610: Cinta virgen de metal

Magnetófono I

1. Ajuste del ángulo de cabeza
2. Ajuste del nivel de reproducción
3. Ajuste de característica de frecuencia de grabación/ reproducción
4. Ajuste de nivel de grabación

Magnetófono II

1. Ajuste del ángulo de cabeza
2. Ajuste del nivel de reproducción
3. Ajuste de característica de frecuencia de grabación/ reproducción
4. Ajuste de nivel de grabación

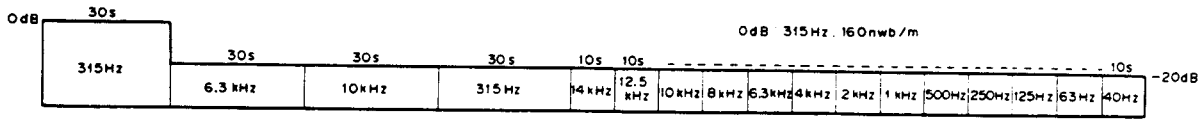


Fig. 7-3 Cinta de prueba STD-331B

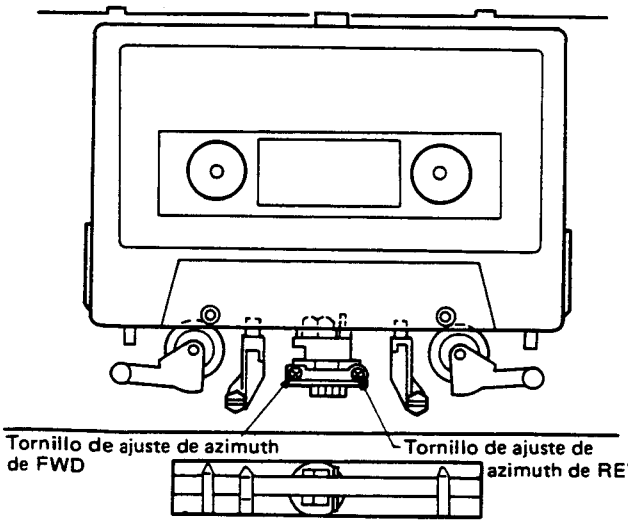


Fig. 7-4 Ajuste de azimuth de cabeza

Cinta de prueba	STD-331B
Conmutador DOLBY NR	OFF

• Se ha aplicado una compensación de 63 Hz/1 dB por efecto de borde en el lado derecho.

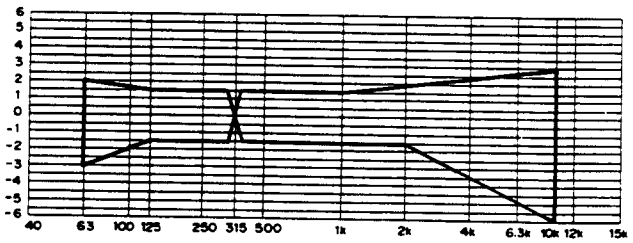


Fig. 7-5 Margen permisible de respuesta de reproducción

● Ajuste de la platina I

• Esta unidad está equipada con selector automático de cinta.

1. Ajuste del ángulo de cabeza

• Girar VR301 y VR302 (RVs do ajuste de nivel de reproducción) completamente en sentido horario (posición MAX).

Selector de cinta	Modo	Señal de entrada/ cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	PLAY	10kHz, -20dB (reproducción)/STD-331B		Tornillo de ajuste del ángulo de cabeza (Fig. 7-4)	TP501 (L) TP502(R)	Máximo nivel de señal de reproducción	Fijar el tornillo después del ajuste.

2. Ajuste del nivel de reproducción

• Este ajuste determina el nivel Dolby de reproducción, por lo que debe realizarse cuidadosamente.

Slector de cinta	Modo	Señal de entrada/ cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	PLAY	315Hz, 0dB (reproducción)/STD-331B		VR301 (L) VR302(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)	

3. Ajuste de característica de frecuencia de grabación/reproducción

• Este ajuste determina la polarización de grabación, por lo que debe cuidarse evitar el deterioro del factor de distorsión debido a polarización insuficiente.

Selector de cinta	Modo	Señal de entrada/ cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	REC	Entrada de 315Hz la jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-30,2dBV (31mV)	Colocar el RV de nivel de grabación en la posición central.
NORM	REC/PLAY	315Hz (grabación) y 10kHz (reproducción)/ STD-608A	2	VR309(L) VR310(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener nivel de reproducción de 10kHz igual a 0±0,5 dB de la señal de 315 Hz.	

• Las curvas de respuesta de frecuencia mostradas en Fig. 7-7 deben cumplirse para cada combinación de cinta de prueba/posición del conmutador DOLBY NR.

4. Ajuste de nivel de grabación

Selector de cinta	Modo	Señal de entrada/ Cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315Hz (grabación y reproducción)/ STD-608A	2	VR305(L) VR306(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de -10,2 dBV (309mV) de la señal de 315 Hz.	
METAL	REC/PLAY	315Hz (grabación y reproducción)/STD-610	3		TP501 (L) TP502(R)	Confirmar que el nivel de reproducción de la señal de 315 Hz sea -10,2 dBV ±2 dB.	

● Ajuste de la platina II

• Esta unidad está equipada con selector automático de cinta.

1. Ajuste del ángulo de cabeza

• Girar VR303 y VR304 (RVs de ajuste de nivel de reproducción) completamente en sentido horario (posición MAX).

Selector de cinta	Modo	Señal de entrada/ cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de medición	Comentarios
NORM	PLAY	10kHz, -20dB (reproducción)/STD-331B		Tornillo de ajuste del ángulo de cabeza (Fig. 7-4)	TP501 (L) TP502(R)	Máximo nivel de señal de reproducción	Fijar el tornillo después del ajuste.

2. Ajuste del nivel de reproducción

• Este ajuste determina el nivel Dolby de reproducción, por lo que debe realizarse cuidadosamente.

Selector de cinta	Modo	Señal de entrada/ cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	PLAY	315Hz, 0dB (reproducción)/STD-331B		VR303(L) VR304(R)	TP501 (L) TP502(R)	-10,2dBV (309mV)	

3. Ajuste de característica de frecuencia de grabación/reproducción

• Este ajuste determina la polarización de grabación, por lo que debe cuidarse evitar el deterioro del factor de distorsión debido a polarización insuficiente.

Selector de cinta	Modo	Señal de entrada/ cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-30,2dBV (31mV)	Colocar el RV de nivel de grabación en la posición central
NORM	REC/PLAY	315Hz (grabación) y 10kHz (reproducción)/ STD-608A	2	VR311 (L) VR312(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de 10 kHz igual a 0±0,5 dB de la señal de 315 Hz.	

• Las curvas de respuesta de frecuencia mostradas en Fig. 7-7 deben cumplirse para cada combinación de cinta de prueba/posición del conmutador DOLBY NR.

4. Ajuste de nivel de grabación

Selector de cinta	Modo	Señal de entrada/ Cinta de prueba		Puntos de ajuste	Puntos de medición	Valor de ajuste	Comentarios
NORM	REC	Entrada de 315Hz al jack VIDEO.	1	Nivel de señal de entrada	TP501 (L) TP502(R)	-10,2dBV (309mV)	
NORM	REC/PLAY	315Hz (grabación y reproducción)/ STD-608A	2	VR307(L) VR308(R)	TP501 (L) TP502(R)	Grabar y reproducir repetidamente, efectuando correcciones hasta obtener un nivel de reproducción de -10,2 dBV (309mV) de la señal de 315 Hz.	
METAL	REC/PLAY	315Hz (grabación y reproducción)/STD-610	3		TP501 (L) TP502(R)	Confirmar que el nivel de reproducción de la señal de 315 Hz sea -10,2 dBV ±2 dB.	

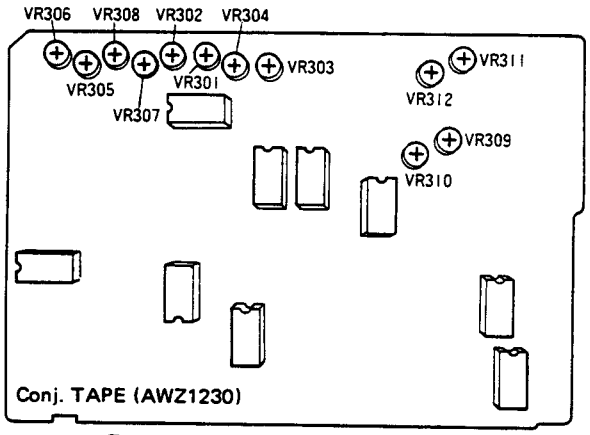
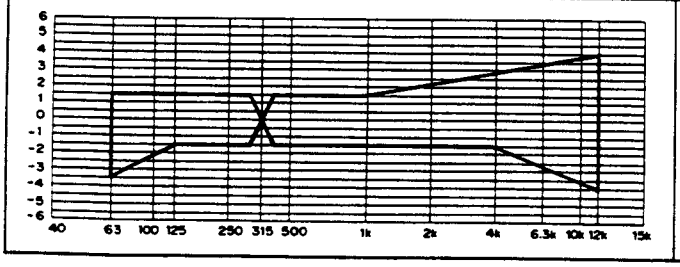
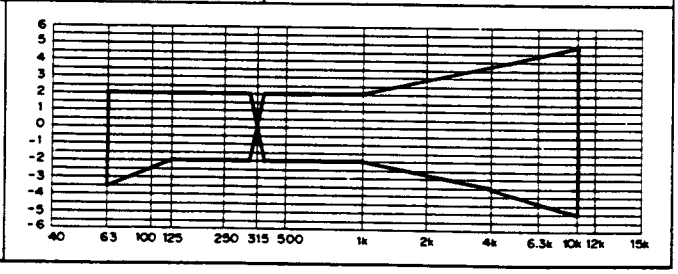


Fig. 7-6 Ajuste de las platinas I y II

Cinta de prueba	STD-608A
Conmutador DOLBY NR	OFF



Cinta de prueba	STD-608A
Conmutador DOLBY NR	B



Cinta de prueba	STD-608A
Conmutador DOLBY NR	C

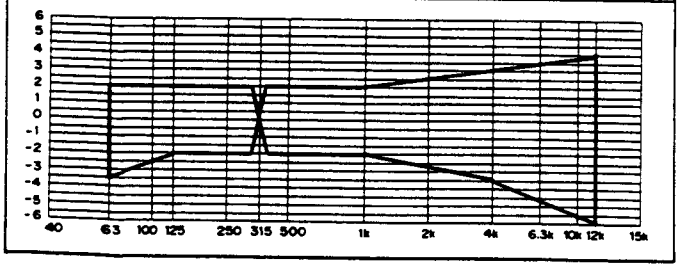
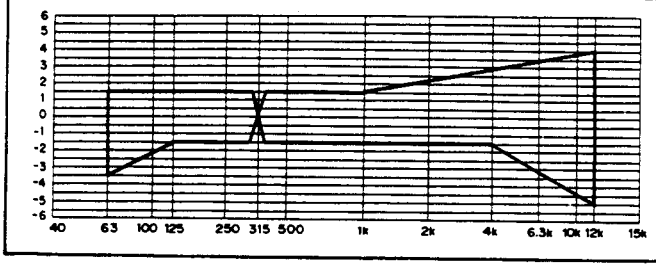
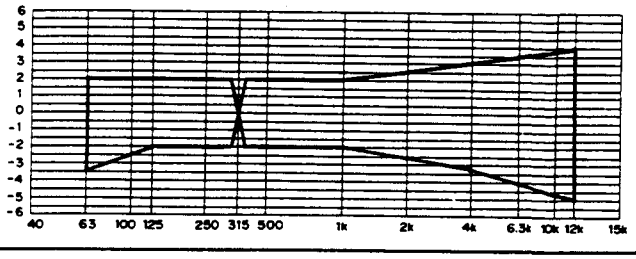


Fig. 7-7-1 Margenes permisibles de respuesta de frecuencia de grabación/reproducción (NORM)

Cinta de prueba	STD-620
Conmutador DOLBY NR	OFF



Cinta de prueba	STD-620
Conmutador DOLBY NR	B



Cinta de prueba	STD-620
Conmutador DOLBY NR	C

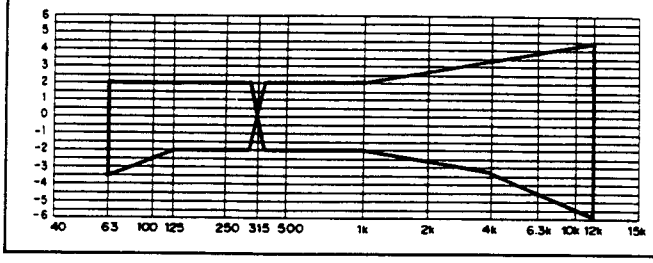
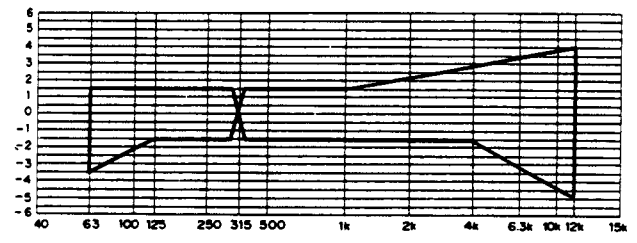
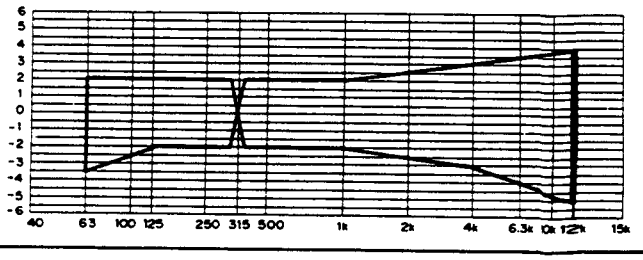


Fig. 7-7-2 Margenes permisibles de respuesta de frecuencia de grabación/reproducción (CrO_2)

Cinta de prueba	STD-610
Conmutador DOLBY NR	OFF



Cinta de prueba	STD-610
Conmutador DOLBY NR	B



Cinta de prueba	STD-610
Conmutador DOLBY NR	C

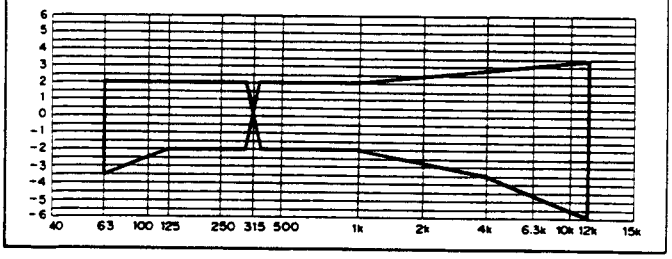


Fig. 7-7-3 Margenes permisibles de respuesta de frecuencia de grabación/reproducción (METAL)